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TOWARD A BROADER BASE FOR AMERICAN SECONDARY EDUCATION

Alert persons responsible for the program of secondary education will undoubtedly keep in touch with the reports, as they appear, of the American Youth Commission of the American Council on Education. Among the first of these reports is Harl R. Douglass' *Secondary Education for Youth in Modern America*. This monograph is published as a report *to*, rather than *of*, the commission. Its contributing chapters are entitled "The Objectives of Secondary Education," "The Problems and Needs of Youth," "Recent Changes and Current Trends in American Life," "A Program of Universal Secondary Education," "Implications for the Secondary Schools," and "Basic Theses and Proposals."

We cannot undertake, either by paraphrase or by quotation, to give an adequate impression of the report, but we reproduce a list of types of educational institutions which recommend themselves to the author as well adapted to youth not now adequately provided for. It is his belief that present facilities were never intended for the "great mass of non-scholarly youth"—that they are "too bookish, too intellectual, too impersonal, too far removed from problems of life, too difficult, and they provide too meagerly for the satisfaction

of the desire for lifelike experience." Among the types of provisions in which beginnings have already been made and with which Douglass believes we should have further experimentation are the following.

I. Part-time co-operative schools, providing concomitantly on approximately half-time each, work and life experience, and education for citizenship, home life, health, and vocation.

II. Short term schools, such as the Minnesota Schools of Agriculture for youth not high-school graduates;

III. Modified versions of the Danish "folk" or "people's" high schools;

IV. Revised versions of the C.C.C. camps, organized under the direction of local boards and devoting half-time to community service and half-time to education;

V. Reorganized college programs intended for less scholarly youth, such as the General College of the University of Minnesota, the C.W.E.S. Colleges in Chicago, and the Emergency Colleges in Michigan;

VI. Terminal four-year junior colleges with vocational and citizenship curriculums.

VII. Vocational schools of approximately junior-college grade, similar to those in the state of New York under the supervision of the Regents of the University of New York;

VIII. Central or consolidated schools in rural areas which make available to the youth of such areas a program of education, recreation, and guidance distinctly superior to that possible under most present plans of organization.

It is not entirely clear whether Douglass is urging experimentation within schools now operating or in separate institutions. It is our offhand judgment that many of these provisions could and should be worked out as additions to, and modifications in, institutions now offering conventional facilities. If the opinion should be found tenable, it would facilitate the development of programs for youth at present not well served.

THE BACHELOR'S DEGREE AT THE END OF THE JUNIOR COLLEGE

At the Institute for Administrative Officers of Higher Institutions held at the University of Chicago in July, one session was devoted to discussing the pros and cons of granting the Bachelor's degree at the end of the junior-college period. A speaker on behalf of the proposal was Professor George A. Works, dean of students and university examiner of the University of Chicago. The arguments pre-

sented were mainly four, arising out of (1) the relation to the period of general education, (2) the influence of the junior college, (3) the relation to the Master's degree, and (4) the social effects of the prolonged period of formal education. The gist of the arguments is presented here by quotation and abstract. Following are the complete statements in support of the first and second arguments.

1. In the junior college which is a part of a four-year college or university, as well as in the separate junior college, the completion of its work has in this country generally come to be regarded as marking the termination of general education, that is, general in contrast with professional education or intensive study in a relatively restricted academic field. True, there are those who regret this condition, but it is already fairly completely established in our pattern of higher education. Since this point marks a break in the character of the program of education, it would seem to be the logical place at which to award a Bachelor's degree. It would be more logical to grant it at this level than to award it as we now do at the end of two years of specialized study, especially since this period of specialized study is only a segment taken from the three years above the junior-college period required for the Master's degree, which is rapidly becoming the significant degree in the field of secondary-school teaching.

2. The evidence at hand indicates that the junior college is with us to stay for some time to come. It is the type of higher institution which is now growing most rapidly in enrolment and which seems certain to increase in numbers of students most markedly in the immediate future. Data collected by the North Central Association for all accredited institutions in its territory for the period from 1918-19 to 1933-34 show that the enrolment in junior colleges, when computed on a percentage basis, showed nearly twice as great an increase as any other type of higher institution. This statement taken alone does not give an adequate idea of the significance of this change. The other types of institutions are all at least four years in length, and part of their increase in enrolment is due to an increase in retention of students throughout the entire period represented by their programs. When the changes in Freshmen entering are examined, the import of the preceding statement is more evident. The percentage increase in Freshmen was 618—in publicly supported junior colleges taken alone it was 837—and in no other type of institution, except the teachers' college, with an increase of 89 per cent, was the percentage as great as 50. In the universities the number of Freshmen enrolled actually showed a decrease during the period from 1918-19 to 1933-34.

Another factor that must be borne in mind in interpreting these data is that they relate to accredited institutions only, and a much smaller proportion of the junior colleges than of any other type are accredited. The increase in the relative importance of the junior college is a movement that would appear almost certain to continue for some time to come. True, much of their increase

in enrolment is undoubtedly coming from increased attendance at higher institutions, but it does mean that all other types of higher institutions increasingly will draw the membership of their student bodies from those who have completed the junior college. In view of these facts would it not be desirable to award the Bachelor's degree at the end of the junior college and make a more rigid selection than now obtains of those who go above this level?

With respect to the third argument, that pertaining to the Master's degree, Dean Works points out that the present situation regarding this degree is very unsatisfactory, the dissatisfaction arising out of the fact that the degree represents one year only of study beyond the Bachelor's degree. This period is too short for the development of a satisfactory program. In presenting this argument, Dean Works quotes from a memorandum prepared by Dean Redfield, also of the University of Chicago, indicating for the Division of Social Sciences the desirability of two levels of specialized study, for the lower of which three years beyond the period of general education are needed, and for the higher level, that leading to the doctorate, two more years. The present practice of granting the Bachelor's degree after two years of study beyond the end of the period of general education cuts across the desired three-year period. It is Dean Works's opinion that the problem at the University of Chicago is not greatly different from that presented to other institutions. The advantages that would flow from a change by which the period of study leading to the Master's degree would be unified over the three-year period above the junior-college level appear to him to constitute one of the most forceful arguments for the adoption of the proposed change.

In supporting his fourth argument, that arising from the social effects of the prolonged period of formal education, Dean Works draws on a statement by William F. Ogburn, professor of sociology also at the University of Chicago. The best that can be done here is merely to suggest the nature of Professor Ogburn's consideration of the problem. He directs attention to the late age of graduation from the university and to the effect that prolongation of the period of schooling has in extending the sheltered life of the student and in delaying entrance remuneratively in a profession to twenty-five or thirty years of age. The transition from school to occupation is probably easier at earlier ages than for ages typical of present-day

graduates. He refers also to the typical postponement by college graduates of marriage to a point long after the organism is ready for it: there is a discrepancy of fifteen years between the social age for marriage and the biological age.

Dean Works's paper also takes up one by one the objections that are raised to awarding the Bachelor's degree at the end of the junior-college period. One of these is that such a practice would result in the degradation of the degree. He calls attention to evidence which indicates that the import of the degree has already changed greatly over the period of a century. Other objections relate to the great variation in connotation of the degree that would accompany the change and the adverse effect on the independent colleges of liberal arts. For Dean Works's comments on these objections the reader should refer to the full report of his address, which, with the discussion by others opposing the change and all other papers and discussions of the institute, are being published by the University of Chicago Press under the general title, *Six Current Issues in Higher Education*.

COLLEGES APPROVE THE STUDENT-AID PROGRAM

Dr. H. C. Jaquith, former president of Illinois College at Jacksonville, Illinois, has conducted for the Association of American Colleges an investigation by questionnaire of the attitudes of the membership of the association toward the student-aid program of the National Youth Administration. The report of the investigation has been sent to the officers of the National Youth Administration and by them released to the press. The following paragraphs summarize the results of the inquiry.

This survey includes replies from over three hundred participating colleges. The administrators are unanimous in the values of the fundamental purpose of the program. The aid given to the individual students during the depression has enabled approximately 12 per cent of the enrolment of each college to continue their education beyond the high school, whereas without this aid a large portion would have sought employment at a time when the national unemployment problem was most acute. Others would have found it necessary to seek part-time employment in college communities, already overburdened with adult-employment problems. The aid has enabled students to earn necessary funds through socially desirable and educationally valuable community projects, without complicating or intensifying the general employment problem.

Second, the control of the program in the separate colleges has been entirely in the hands of the college administrators, free from direct or implied interference with the educational purposes of the colleges. Minimum financial regulations essential in the distribution of public funds have been followed. The national and state directors have gathered representative educators and administrators in conferences and co-operatively worked out the guiding principles and the programs, allowing the individual college administrator to apply the program to the individual campus. Any minor failures are the results of local conditions, rather than national or state direction.

Third, the colleges have provided the full administrative costs without expense to the governmental appropriations. The most effective administrators and faculty members have been directly responsible for the selection of students receiving aid, assignment of amounts, and the choice of community and campus projects. Unquestionably, no fund has ever been appropriated by Congress where so large a proportion has been applied to the individuals for whom the fund was created and so small a percentage to essential administrative control.

Fourth, the values to the student receiving aid, to the college, and the community have been positive. Any early attitude that may have existed on the part of some students and parents that, because it was government aid, they were entitled to it, irrespective of need, soon disappeared. Any feeling that aid should be given without a corresponding return in service, preferably socially and educationally desirable, soon vanished from the program. No adequate summary or full appraisal can be made of the unrecorded values of this whole program to the individual students, to the several communities, or to the educational departments of the separate colleges. Each college administration has gone on record that the general program and the various projects have maintained the self-respect of the students, enlarged their social horizons and educational opportunities. . . .

Seventy-four per cent of the 281 replies tabulated, concurred in the desirability and necessity of the continuation of the present N.Y.A. program. Ninety-two per cent of the 67 replies indicating an early discontinuance concurred that the decrease should be gradual, half indicating that it should be equally distributed over a four-year period.

Dr. Jaquith's report draws in part also on a study by Raymond M. Hughes, president emeritus of Iowa State College of Agriculture and Mechanic Arts, and on certain other studies, the conclusions from which go far to justify a generous program of student aid. Hughes's investigation shows that the present student body of higher institutions comes largely from families in higher income groups and, conversely, in much smaller proportions from the lower income groups. In relation to this investigation Jaquith says

that "the general conclusions are irrefutable in that more than 18 per cent of the students now in college come from homes with an annual income of less than \$1,500 a year and must have some financial aid or work to receive higher education. Further, any substantial increase of enrolment in colleges or universities of youth of college age must come from the lower rather than the higher income groups."

HERE AND THERE AMONG THE HIGH SCHOOLS

A printed list of opportunities and services for high-school pupils.—The Wells High School of Chicago, of which Paul R. Pierce is principal, has distributed to its pupils a folder, *What Your Neighborhood Offers—Opportunities for Boys and Girls*. The opportunities and services named are grouped under five classifications, namely, athletics and sports, music, dramatics, special-interest activities and clubs, and health, and include all such resources of the neighborhood outside the school. For example, under "music" are listed the three types of institutions affording the resources: settlement houses, parks, and church organizations. Under each type are named the typical programs or opportunities available, as choral singing, voice-training class, glee club, choir, etc. The value of such a list in recreation, guidance, and supplementary education is so apparent as not to require elaboration.

An automobile-driving plan with novel features.—Many high schools now have instruction in the use of the motorcar, but few, if any others, have an arrangement leading to a driver's certificate as has the Senior High School of Fremont, Nebraska. As described by the principal, G. W. Hildreth, the Fremont plan requires pupils to pass four types of tests. These tests are taken near the pupil's sixteenth birthday. Pupils are exempted from the requirement on presentation of written requests from parents. Copies of the tests are made available to pupils in the school library, as is also ample reference material containing the correct responses to the various elements of the tests.

The four tests represent the following knowledge, skill, and ability: (1) knowledge of proper methods of manipulating an automobile and rules and codes of the road; (2) demonstration to a competent

examiner of the ability to drive an automobile under varying conditions; (3) a physical examination covering eyesight, color blindness, angle of vision, hearing, and brake-reaction time; (4) first aid and what to do in case of accident. The knowledge tests include a total of more than eighty questions, are of the objective type, and are administered in a classroom by a member of the faculty. The demonstration test involves co-operation of members of the community who serve as volunteer examiners. This test includes starting the motor, starting the car, stopping the car, driving the car, and parking it. The physical examination is given by the school nurse or a member of the faculty. Special mention should be made of the testing of brake-reaction time, which is done by a machine requiring movement of the foot from an automobile throttle to the brake pedal and utilizes also a salvaged traffic light. The first-aid examination consists in the description of an automobile accident and the listing of activities following the accident in the order in which they took place. The situation involves both first aid and conduct. Successful passing of the examination is rewarded by the issuance of a driver's certificate, which is signed by the chief of police and the principal.

Copies of the forms and tests used will be supplied by Principal Hildreth to persons willing to pay the cost of mimeographing and mailing.

An inquiry into study habits.—In the Paseo High School of Kansas City, Missouri, of which B. M. Stigall is principal, questionnaires are distributed to pupils frequently to ascertain sentiment toward school policies or facts concerning habits and attitudes. Harry R. Shepherd, vice-principal, reports that a recent inquiry of this sort gathered information concerning study habits. In response to the question, "Do you have a schedule for your study at home?" slightly less than half answered "yes," and the remainder answered "no." Although a small number reported no study at home, fully three-fifths reported two hours or more. Study at home was begun at all hours from two-thirty on, with the largest single number beginning at seven. Almost three-fourths of the whole group did their study at home after six o'clock. The great majority found the study-hall period in school helpful.

Curriculum revision in California high schools.—It is appropriate to quote in this feature a brief article by Edgar G. Johnston, principal of the University High School of the University of Michigan, who spent the first semester of 1936-37 visiting the high schools of California and inquiring into the progress of curriculum revision in the schools visited. The article was published in the University's *School of Education Bulletin*.

Those who have followed the discussions and symposiums presented in the *California Journal of Secondary Education* will have been impressed with the attention given to reshaping the high-school curriculum. This impression is intensified by attendance at professional gatherings in the state, conversation with secondary-school leaders, and, most of all, by visits to representative high schools.

Of special interest is the progress of curriculum reorganization in a group of twelve "co-operating schools" which, through arrangement with the University of California and the State Department of Public Instruction have been granted freedom to experiment with new types of curricular organization without regard to college-entrance requirements.

Both among the schools of this group and in other schools visited, there are departures from conventional procedures which present local variations but show common characteristics. Perhaps most notable is the extent to which "a core curriculum" has been developed embracing those types of learning experience which are viewed as basic for all pupils enrolled in the school. A reaction against an overdevelopment of the elective system and the increasing specialization of relatively isolated subject-matter departments, the core curriculum represents an attempt to organize subject matter and activities drawn from various fields of learning into larger units with emphasis on continuity of experience. The "core" ordinarily involves features from several fields in the organization of units and in class instruction and provides for classes meeting for two or more consecutive periods.

Specific examples of "core" organization from individual schools will probably serve best to illustrate the general nature of the recent developments. In the Sequoia Junior High School, a four-year high school with students drawn from a residence community and its surrounding area, the "core" course for Grades IX and X, "Social Living," is a fusion of civics and history together with correlated material from the fine arts. The course meets two hours daily, and the teacher is in charge of counseling for her group. In Grade IX an additional hour is devoted to a required course in "Home Art and Applied Science"—a correlation of content from the fields of science, applied art, mathematics, and home art. So far as schedule permits, the grouping of pupils for "Social Living" is carried out in the assignment to this course.

In the Eagle Rock High School, a six-year junior and senior high school in a

Los Angeles suburb, the unit for the curriculum is the "Basic Course," meeting ten hours a week in Grades VII-XI, and five hours a week in Grade XII. The general title applied to this basic course is "Social Understanding." Into this unit are gathered "every kind of material and type of activity that may help the pupil to interpretation, participation, and judgment to understand the social world of which he is increasingly a part." The social studies are an important part of the course, which also includes music, art, literature, and English expression, both written and oral. Assignment to the basic course is by two-year sequences, and the teacher of "Social Understanding" serves as personal adviser to the group. General emphases in the successive years of the basic course are indicated by the designation of seventh- or eighth-grade social living as "The American Epic," ninth and tenth grades as "World Cultures," and the eleventh grade as "American Social Development." In assigning pupils to elective opportunities outside the basic course, a classification is used: Group U, those having shown ability to do abstract thinking and whose interests are primarily academic; Group N, pupils whose major interests are rather well defined along known academic lines; and Group G, a general group composed of those without well-defined interests.

The University High School of Oakland is a senior high school with a cosmopolitan, urban population. It is a part of the Oakland city school system, but as center of the teacher-training program of the University of California, has many points of contact with the University. Experiences deemed essential for all pupils are provided in a series of sequential courses, each offered for five hours a week. In the X B semester the course is "Personal Management I," intended to orient the pupil in his new school situation; in the second semester he is enrolled in "Social Living I," a course drawing its materials largely from the natural and social sciences. In the eleventh grade the first-semester core is "American Institutions." In the second semester the pupil has a choice among three courses varying somewhat in emphasis: "Social Problems," "Political Problems," or "The Business of Living." In the twelfth grade the first-semester core is "Personal Management II," with emphasis on developing self-direction along the lines of personal ability and interest. For the second semester "Social Living II" is designed to sum up the series of preceding constants in an analysis of contemporary society.

These illustrations are perhaps sufficient to indicate the type of approach and the extent of individual variation in pattern. In other schools observed, the core is variously designated and organized. In the Ventura Junior High School the core is "Human Relations"; in the David Starr Jordan High School of Long Beach, "Social Culture," occupying ten hours a week for the tenth and eleventh grades. In the Santa Monica High School a limited group of college-preparatory students is enrolled in a unified course meeting fifteen hours a week during the senior high school year and taught co-operatively by English, science, and social-science teachers. In the Lincoln School of Los Angeles the "Social Living" core, in addition to English, social studies, and the arts, incorporates

extensive work in consumer education and motion-picture appreciation. In Burbank, a unified twelve-year sequence of core content has been developed to extend from kindergarten through the twelfth grade. In addition to these experiments with a unified core, there is evidence of curriculum innovation within unit courses among a number of schools observed. In the Palo Alto High School a correlation of English and Spanish has been introduced with special emphasis on the needs of the pupils of lower linguistic ability. The course is an introduction to the contribution of Spanish-speaking people to American culture in the southwest and is largely taught with English as a medium of instruction. At the same school a consumer's science course with reduced emphasis on laboratory experiment has been organized for the non-college-preparatory group. In the Sacramento High School a course in civics has been built around the work of the Student Council with the problems of student government forming the basis of the curriculum. At the University High School a unified course in physical science, drawing problems from physics and chemistry and covering the Junior and Senior years, is reported. At the Fremont High School in Oakland and the Lincoln School in Los Angeles, a program of coeducational recreation in physical-education classes has been introduced. A reorganization of the curriculum of the small high school (under 150) is reported for the Greenville High School, where a flexible program has been worked out with much attention to remedial needs and individual choice in subject matter. Units in family relationship, leisure time, safety education, and problems of the consumer appear in courses reported for a number of the schools visited.

It would be misleading to give the impression that the courses here described are universal among California schools or that the schools visited are typical of all California high schools. Unquestionably these schools represent pioneering ventures rather than characteristic procedures. Nevertheless, they have significance as indicating the trend of thinking on the part of leaders of secondary education in the state.

FOR SAFETY ON THE BICYCLE

The public-school authorities of Seattle, Washington, have prepared and distributed an attractive folder of *Bicycle Do's and Don'ts for Safe Riders*. The folder opens with the assertion that police records of the city "show that more than fifteen hundred children have been injured while riding bicycles during the past ten years." Chief contents are the following *do's* and *don'ts*.

SAFE BICYCLE RIDERS ALWAYS DO THESE THINGS

- Stop at all arterial highways.
- Keep to the right near the curb.
- Turn only at street corners.

Signal before turning.
Stop before leaving alleys.
Carry headlights that can be seen 300 feet.
Carry red taillights or large reflectors that can be seen 200 feet.
Keep bicycles well oiled.
Check over all parts of bicycles regularly to be sure they are safe to ride.
Use clips or pins whenever necessary to keep clothing from catching in the chain.
Use bicycle lanes whenever possible.
Use the less busy streets.
Keep alert and watchful for danger.
Leave bicycles in a safe place, under lock, and spaced so as not to interfere with other bicycles.

SAFE BICYCLE RIDERS DON'T DO THESE THINGS

Don't ride on sidewalks or over curbs.
Don't hang on to streetcars or automobiles.
Don't zigzag up or coast down steep hills.
Don't cut corners.
Don't ride without using the handle bars or do other stunts.
Don't ride when ill, tired, or nervous.
Don't accept dares or take foolish chances.
Don't run races on the streets.
Don't carry passengers.
Don't tamper with the bicycles of others.
Don't ride planks or ride through narrow places.
Don't ride on car tracks and similar places that might damage bicycles or throw riders.
Don't lend bicycles to younger children.

This admirable device in safety education well deserves imitation by other school systems.

THE BEGINNING OF COLLEGE EDUCATION FOR WOMEN AND OF COEDUCATION AT THE COLLEGE LEVEL

A brief bulletin recently published by Oberlin College bears the title *The Beginning of College Education for Women and of Coeducation on the College Level* and is credited to Professor Robert S. Fletcher and President Ernest H. Wilkins. The bulletin establishes the fact that "on or immediately after Commencement Day, September 6, 1837, four young women . . . presented themselves and were accepted for entrance into the regular course of the Collegiate

Department." The bulletin goes on to say: "They were the first women to matriculate for a regular college course. *Their matriculation in September, 1837, was the beginning of actual college education for women;* and it was, as well, the beginning of coeducation on the college level."

Oberlin has announced the appropriate celebration on October 8, this year, of this important centennial. The celebration will be in the nature of the dedication of a new architectural memorial on the campus. The memorial will take the form of an architectural gateway and outdoor theater. The Board of Trustees of Oberlin College hopes that many colleges and universities, whether coeducational or for men or for women, may be moved to recognize this centennial some time during the autumn and in such manner as may seem appropriate to them. The educational and social advance represented by these beginnings is important enough to motivate secondary schools also to join in the celebration.

USEFUL PUBLICATIONS OF THE OFFICE OF EDUCATION

Among useful recent publications of the federal Office of Education are three of diverse character. One of these, Bibliography Number 62, compiled by Grace S. Wright, lists and annotates the publications of the United States government that describe the work of the different departments and offices, for example, Department of State, Department of the Interior, Department of Labor, Civil Service Commission, and Tennessee Valley Authority.

A second publication (Vocational Education Bulletin Number 186) is entitled *Co-operative Training in Retail Selling in the Public Secondary Schools* and was prepared by Glenn Oscar Emick. It contains chapters dealing with the history and development of the co-operative courses in retail selling, the aims of the programs, the plans of co-operation, the curriculums and courses of study, instructional practices, facilities, teaching personnel, and the like.

The third publication, *Trends in Secondary Education*, was written by Carl A. Jessen, senior specialist in secondary education, and others. It is published as "advance pages" of Bulletin Number 2, 1937, the *Biennial Survey of Education in the United States: 1934-36*. The June *School Review* carried mention of certain trends in second-

ary education as seen in another chapter of the *Biennial Survey*. This bulletin of later publication reports the same trends and others more directly.

Copies of the bibliography mentioned above may be secured from the Office of Education without charge. The two bulletins are on sale by the Superintendent of Documents, Washington, D.C., for twenty cents and ten cents, respectively.

SECONDARY AND HIGHER EDUCATION IN FINLAND

Finland, as everyone knows, is a small country. In area it covers less than 150,000 square miles and its population totals fewer than four millions. Over a long period it was under Swedish rule, subsequently under Russian control, and since the World War has been a republic. Present republican governmental arrangements make its educational provisions of some special interest to Americans, and we therefore quote at length from an article on "Finland Takes the Lead" published in a recent issue of the London *Times Educational Supplement*. We reproduce the portions dealing both with secondary and higher education.

Until 1858 teaching in secondary schools was given in Swedish only, and the secondary schools also suffered again during the period of Russian oppression, when forty hours a week of tuition had to be given in the Russian language. After 1905 a new curriculum was drawn up by a strongly nationalist senate, and Russian was removed from the syllabus. The patriotic reaction inspired by Runeburg and Snellman gave expression to a clearer view of the character and importance of education.

The twentieth century has inherited from the nineteenth the "lyceums" of two types, classical and modern, in the first of which Latin and Greek are taught, while in the latter more attention is given to modern languages and science. The three "normal lyceums" are very important institutions, where in addition to junior and senior masters there are a number of superintendent masters, more highly paid, and less burdened with the routine work of teaching. This system seems to be excellently developed in Finnish secondary education. The need of an organized and complete course of instruction for those intending to engage in practical careers, or wishing to go on to technical institutions, led to the formation of what was known as the "middle school." The five lowest forms in the lyceums were used for such preparation, while the three highest forms prepared scholars to enter the university, or the higher civil service. Every educational establishment has, since 1918, been subject to government inspection. In pri-

vate schools, therefore, the course must be approved, the buildings adequate (and that means a great deal in Finland), and teachers must have definite qualifications.

The "student" examination, which is more difficult than our matriculation, is taken at the end of the eight years' course. Finnish, with its fifteen cases and numerous other formidable difficulties, is enough to daunt many a stouthearted language student. Its only relatives are Hungarian and Estonian—and they are very distant cousins—so that knowledge of any other European language does not help. Whether, as a result, other languages seem easy compared with their own, it is a fact that amazing fluency in modern languages is obtained by Finnish students who have never left their own country. I visited a secondary school in Helsinki where the boys were able to converse fluently in English, and the absence of foreign accent was very remarkable.

As in the elementary schools, the work in the secondary schools gains interest and stimulus from contact with the future occupations of the boys and girls. Especially is this true of a school in Viipuri (a charming town in East Finland), where the upper classes have two kinds of bias—commercial and agricultural. There are five high schools for Russian emigrants and one German school. Secondary education is not free, but free places in both state and private schools are given to necessitous pupils. The number of such pupils in some schools often exceeds 70 per cent of the total numbers. Tuition fees range from 200 marks a term in state schools with two terms in the school year, to 800 marks a term in private schools. The state spends 135 million marks yearly on secondary education.

The first teachers' training college in Finland was established in 1858, largely by the efforts of Uno Cygnaeus [an educational pioneer guided largely by Pestalozzian principles]. There are now ten such colleges in Finland for the training of teachers in elementary schools: the highest of its kind being at Jyväskylä, where graduates take a two-year course and nongraduates a course lasting from three to five years. Secondary-school teachers must be university graduates who have successfully finished a course of training in the principles of teaching. There are no uncertified teachers. The number of university graduates is high, and, more important, the number of illiterates is amazingly low—less than 1 per cent of all over fifteen years of age. One begins to understand why the number of books sold in Finland in ratio to the population is the highest in the world and one is no longer surprised to find bookshops even in remote Lapland. There are three universities: two at Turku (one Finnish and one Swedish), and the state-owned but self-governing University of Helsinki, founded in 1640, which has no tuition fees and which teaches in two languages, although only about 10 per cent of its 7,000 undergraduates are Swedish-speaking. Two commercial colleges and two colleges of technology supply advanced training in their respective kinds. Since Finland was the first country to grant universal suffrage, it is not surprising to find that it has the highest percentage of women under-

graduates in the world. The comparative figures for 1932 were as follows:—Finland, 30.6 per cent; England, 26 per cent; France, 25 per cent; Germany, 16 per cent.

I have said nothing of trade schools, although the most wonderful school I have ever seen is a trade school at Viipuri. Here I saw boys turning out every conceivable kind of woodwork and metal-work of excellent design and workmanship. Orders for painting motorcars, for dressmaking, furniture, and other work are taken from the townspeople, and the proceeds contribute about 60 per cent of the total cost of the school's upkeep. There are many kinds of trade schools—technical, industrial, commercial, agricultural—giving instruction in all branches of industry, in forestry, dairy farming, or horticulture, and special establishments where girls learn advanced housewifery, homecrafts, or weaving.

The Danish folk-school movement has become even more popular in Finland than in Denmark and has developed in urban and in rural districts on very interesting lines. There are at present about fifty such institutes in Finland, largely supported by the state. They are residential establishments for young people who have left the elementary schools at the age of fifteen. Teaching takes the form of lectures, but practical training is also included. Social gatherings form an important part in the life of such schools, and considerable scope is given for the development of individual tastes.

WHO'S WHO IN THIS ISSUE

ROY IVAN JOHNSON, director of the Division of Skills and Techniques at Stephens College, Columbia, Missouri. MELVIN HAUGEN, principal of the Pillsbury School, Minneapolis, Minnesota. HARL R. DOUGLASS, professor of secondary education at the University of Minnesota. CLAUDE F. TURNER, instructor in mathematics at the John Marshall Junior High School, Seattle, Washington. J. ERLE GRINNELL, director of the Department of Liberal Arts at Stout Institute, Menomonie, Wisconsin. AUSTIN H. TURNER, professor of education at the University of Kansas. MARY FEE, supervisor of practice teaching in English at the University of Kansas. HAROLD H. PUNKE, professor of education at the Georgia State Woman's College, Valdosta, Georgia. GRAYSON N. KEFAUVER, dean of the School of Education at Stanford University. GORDON N. MACKENZIE, assistant professor of education at Stanford University.

THE PROBLEM OF "HOW TO STUDY"

ROY IVAN JOHNSON
Stephens College, Columbia, Missouri

One of the warmly debated questions in education is the question of study methods. To what extent can a formula for effective study be imposed upon students with an assurance of improved results? There are, of course, certain psychological laws, such as the laws of frequency and of recency of experience, which teachers have invoked in planning the organization of institutional material or in spacing drill lessons, but these are concerned with the problem of teaching rather than the problem of learning. The acute question is: Are there certain *best ways* of study which will accomplish best results for all students?

Of course the "uniformists" in education will answer affirmatively, while the individualists will insist that effective methods of study for one learner may not be equally desirable for another. A collection of "confessions" from more than sixty successful writers reveals the fact that there are almost as many ways of attacking the job of writing successfully as there are writers who succeed in the art.

There are nine and sixty ways of constructing tribal lays,
And every single one of them is right!

Some write slowly with meticulous care, weighing every word and phrase as they proceed. Others write rapidly with racing pens or clicking keys, giving attention only to the flow of thought and leaving the details of rhetoric to be polished off, as a kind of chore, after the molten stream of thought has cooled. Some write in the mornings, some in the afternoons, and some in the still hours between midnight and the arrival of the milkman. Some follow an outline which has been carefully prepared before a single sentence has been written. Others just write, trusting to the logical behavior of their own minds to prevent the derailing of ideas.

These confessions, of course, do not prove that one method of going at the job of writing is as good as another. Nobody can say with certainty that the brilliant writer who clicks off sentences as though he were taking a speed test would not have been more successful if he had developed the painstaking habit of phrase-polishing as the composition slowly matured under hesitating fingers. These confessions indicate, however, that highly successful results have been obtained through a variety of habits of work.

There is a large body of literature on the subject of student guidance in study methods—much of it undoubtedly helpful to students who are not achieving successfully in their work. The literature is not conclusive, however, and it will not become conclusive until it acquires a more convincing background of controlled experimentation. One is not surprised, therefore, to find great diversity of practice among teachers with respect to student counseling. The observer in college classrooms will sense different and sometimes divergent emphases in instruction given to different classes relative to methods of work. This difference may mean that study-counseling is on a purely personal and subjective basis, or it may mean simply that teachers are endeavoring to adjust their guidance to certain discovered weaknesses in the groups.

STUDY HABITS RECOMMENDED BY TEACHERS

In order to obtain a clearer picture of the actual situation in the classroom with respect to study guidance, the writer asked thirty college teachers to state one or more types of advice which they believed would be useful to their students in securing better results through study. A list of fifty items compiled in this way was then resubmitted to the thirty teachers, who checked the items *which they sometimes used* in advising students. (The list was prefaced with the statement that no implication of approval or disapproval was intended in connection with any item.)

The items in the following list are stated in the form of recommendations made by one or more teachers to students with respect to study habits. It is obvious that some of the suggestions apply only to special types of subject matter.

SUGGESTIONS RELATIVE TO STUDY HABITS MADE BY THIRTY TEACHERS
FOR THE PURPOSE OF IMPROVING STUDENTS'
EFFICIENCY IN LEARNING

1. Discover the purpose or practical value of the lesson (or the activity to be performed) and keep it constantly in view.
2. Form the habit of regular preparation.
3. In doing special assignments, be sure that you have in mind exactly what is wanted.
4. Make note of especially difficult points so that you can ask for help intelligently.
5. Follow a "study schedule" in the preparation of lessons.
6. Check difficult points in lessons and concentrate practice on such points.
7. If you are getting poor results, experiment with methods of study. Try to find a way which works *for you*.
8. Do not be so much concerned about your grade as a whole as you are about specific weaknesses in your work.
9. Imitate expert performance of the task you are studying.
10. Always try to go a little beyond the minimum assignment. (Often it's the *extra* practice, the bit of *volunteer* work, that speeds up learning and makes for real mastery.)
11. Give your attention *fully* to the work to be done.
12. Practice in situations which are as nearly "normal" as possible. (For example, practice verb forms in sentence settings rather than in isolated settings.)
13. Have a definite *place* as well as *time* for study.
14. If you are using your own books, underline or annotate if such a device will help you to fix points in mind or economize time in review.
15. Watch carefully a step-by-step demonstration of the task to be done.
16. If the unit assigned is too large or difficult, do as much as you can do *well*; don't try to do the whole job in an inferior and superficial manner.
17. Write summaries of references which you read—either paragraph summaries or outline summaries.
18. Do not permit yourself to slip up in regularity of practice.
19. Try to visualize the whole task so that the relation of the part to the whole may be clearer.
20. Study at successive intervals rather than through excessively prolonged and exhausting periods.
21. Strive to master main points first. Let refinements come later.
22. Learn to judge your own work according to any standards which you think are good.
23. Make a deliberate attempt to acquire new words that relate to the subject.

24. In study reading, skim first and read for more detailed information later.
25. Try studying with another person if you find you can do so effectively. [This suggestion is qualified by advice in regard to methods of studying together.]
26. Keep constantly in mind relationships between new learning and old.
27. Review your notes immediately before tests or written lessons covering subject matter of reading or class lectures.
28. Use morning study hours for difficult subjects.
29. Try to turn your job into a game, a puzzle to be solved, something that challenges you.
30. Try to develop a "mastery" attitude toward study. If you have not "the will to study," some fundamental change must be effected before you can make any significant progress in school.
31. Try to find a basic idea or simple principle and work out from it to an understanding of associated ideas or to logical applications of the principle.
32. Be alert to discover how others do a specific task successfully.
33. Before beginning a task, have the necessary tools and materials at hand.
34. "Take stock" at frequent intervals; do not wait until the end of the term to review.
35. In imitating an activity, *watch* carefully and try to *feel* the movement as you see it done.
36. Eliminate distractions as fully as possible.
37. Try to secure variety in your practice; that is, instead of repeating exactly the same problem over and over choose a new problem involving the same principles and calling for the same abilities.
38. Occasionally read aloud (either your own sentences or sentences in the textbook) to judge the value of the sentences.
39. Try to relate every lesson in some way to yourself. (For example, how does an author's interpretation in literature apply in your own experience? How does a principle you have studied apply to yourself?)
40. Do not resort to mechanical memorization. Make logical associations to assist yourself in learning.
41. If the task is complicated, concentrate on one simple element at a time.
42. Learn thoroughly the successive *steps* in doing a certain task and follow them *without exception*.
43. Go slowly through a difficult process so that each part, idea, or element of emotion may be emphasized in your mind.
44. Formulate a *clear question* about each point of difficulty.
45. Do a little introspection to see how much you *really want to learn* the lesson you are studying.
46. Work according to specific directions on instruction sheets prepared for the respective jobs.

47. If pure memorization is required in any course, keep in a separate list in your notebook the items to be memorized.
48. If you are having difficulty in getting time for your studies, put down at the end of each day the amount of *lost time* which you might have given to your work.
49. Check your work through twice, independently, and compare your two results.
50. Keep in a corner of your mirror word lists to be learned or other memory items of which you need to be reminded frequently.

The frequency with which items in this list were checked indicates a rather general interest on the part of the teachers in guiding students' study habits. Most of the suggestions given are based on sound common sense and approved psychological principles. However, one may legitimately raise the question whether students who ignore many of these techniques or students who adopt different methods of work may not also accomplish excellent results.

DIFFERENCES IN STUDY HABITS OF GOOD AND POOR STUDENTS

The purpose of the next step was to discover to what extent poor students and good students utilize the same recommended methods of study. From the dean's office of Stephens College two lists were obtained: a list of the names of thirty students who ranked highest in total attainment and a list of thirty students who ranked lowest. To each of these groups of students the same list of fifty study methods was presented with the following specific directions: "Please read these fifty items carefully and decide to what extent they represent your own study practices. Check in the left-hand margin the study methods which you generally use in preparing your work." It was explained that the papers were to be returned unsigned and that the purpose of the checking was to obtain a true picture of *actual study practice*.

A first glance at the results showed that Items 1, 2, 10, 18, 25, 36, and 40 were the items that differentiated most clearly between the good students and the poor students. In Table 1 these seven items are ranked in the order of the percentage of difference between the number of good and poor students checking each item. No item is included in this table which represents the practice of fewer than 53 per cent of one group. The extent to which prevalence of practice

increases from the lower group to the higher is easily determined. The good students, for example, have a decidedly greater tendency to inquire into the *purpose* of a particular assignment or unit of study and to keep the purpose in view as they work, the percentage of increase in group prevalence being 175. Fewer students from the upper group than from the lower group like to study with another person.

When these seven differentiating items are eliminated, no significant variations can be discovered in the practices of the lower and

TABLE 1
ITEMS SHOWING WIDEST VARIATION IN STUDY PRACTICES
OF GOOD STUDENTS AND POOR STUDENTS

STUDY METHOD	NUMBER OF TIMES CHECKED		PERCENTAGE OF DIFFERENCE
	Poor Students	Good Students	
10. Try to go a little beyond the minimum assignment.....	5	20	300
18. Do not permit yourself to slip up in regularity of practice.....	6	18	200
1. Discover and keep in view the purpose of the lesson.....	8	22	175
2. Form the habit of regular preparation.....	15	27	80
36. Eliminate distractions as fully as possible.....	12	21	75
40. Use logical association rather than mechanical memorization.....	14	21	50
25. Try studying with another person if you can do so effectively.....	17	9	47

the higher groups with respect to the remaining methods of study in the original check list. In fact, the results show a correlation of .87 between the practices of the two groups, with the exclusion of the items named above.

CHARACTERISTICS OF STUDY HABITS DIFFERENTIATING GOOD
AND POOR STUDENTS

When the study methods which seem to differentiate the high group from the low are examined, they resolve themselves largely into a question of attitude. The conscientious student looks for purpose and value in his work; he is willing to spend extra effort in doing more than is required; he can be depended on to do his assignments

regularly and (in skill subjects) to be consistent in his practice; he strives to secure study conditions favorable to concentration; he is independent and self-reliant. Assuming an intelligence that is adequate for the mastery of the subject matter, one is drawn toward the conclusion that the chief problem involved in improving student attainment through study is the problem of improving a student's attitude *toward* study. The ramifications of this problem are too numerous to discuss here, but it is a potent suggestion of at least one important direction in which the forces of educational reform should be aimed.

Given a student with reasonable capacity and an active desire to learn, it is certain that learning will result from his efforts. He will discover by experience and observation and by responsiveness to directions in specific tasks the techniques that produce *for him* the best results. Two students may arrive at Phi Beta Kappa membership by different routes so far as their detailed study practices are concerned. They will probably agree on the basic values of knowledge; they will be kindred in their spirit of scholarship; and they will be animated by similar ideals and attitudes. They will, nevertheless, be as individual in their respective methods of study as they are in their personalities. Because they *are* individuals, they will resist the stereotyping of learning. One is reminded in this connection of Chesterton's vigorous plea for individualism in minor matters of method (in contradistinction to actuating principles):

It is the great peril of our society that all its mechanism may grow more fixed while its spirit grows more fickle. . . . I should like men to have strong and rooted conceptions, but as for their lunch, let them have it sometimes in the garden, sometimes in bed, sometimes on the roof. . . . Let them argue from the same first principles, but let them do it in a bed, or a boat, or a balloon.¹

It requires only a little paraphrasing to adapt this statement to the successful achievement of good students. Their ingenuity and perseverance constantly demonstrate that "there are nine and sixty ways" of doing more things than "writing tribal lays."

This point of view, however, does not render futile all efforts to improve individual study techniques. The writer who outlines his topic in great detail before composing may develop, with practice, greater proficiency in outlining. An author who dictates his manu-

¹ G. K. Chesterton, *Tremendous Trifles*, p. 77. New York: Dodd, Mead & Co., 1917.

scripts instead of preparing them in longhand may, with practice, acquire an increasingly greater degree of fluency and cogency of thought. A student who probes into the purpose of an assigned project as a preliminary step in learning will gradually develop a clearer insight and a keener sense of values, and one who underlines or annotates in order to facilitate the process of reviewing will learn to discriminate more wisely between important and unimportant facts. Likewise, a student who leans heavily on a notebook will become more and more skilful in selecting and recording useful items from lectures and reference reading. In other words, a student who has a worthy and persistent attitude toward learning may often improve his attainment by perfecting the habits of study which he has already adopted.

There is another sense in which study techniques are variable factors rather than uniform factors in the process of learning. The approach which a student makes to laboratory science may be quite different from the approach which the same student makes to a study of American literature. The person best qualified to guide the student in discovering effective methods of attacking problems in science is the science teacher. The person best fitted to guide students into an appreciative understanding of literature is the literature teacher. A part of the teacher's instructional obligation in every field, therefore, is the *direction of learning activities* which are focused on the subject matter.

The implications of this article will no doubt be stoutly resisted by the proponents of formal courses in "how to study"; the suggestion that study techniques cannot be adequately dealt with on a collective basis will be displeasing to the "uniformist" who is fascinated by mass movement rather than by results. It must be borne in mind that the conclusions here presented do not nullify completely the aims of study orientation. Undoubtedly, some preliminary advice in regard to favorable study conditions and to such basic principles as frequency and regularity of practice is helpful to students who really wish to do well in their work. Beyond that point, the problem becomes an integral part of the total teaching process subject to the requirements of specialized subject matter and to individual differences of the learners.

THE EFFECT OF A COURSE IN OCCUPATIONS ON THE VOCATIONAL AND EDUCATIONAL PLANS OF NINTH-GRADE CHILDREN

MELVIN HAUGEN
Pillsbury School, Minneapolis, Minnesota

HARL R. DOUGLASS
University of Minnesota

THE PROBLEM AND SOURCES OF DATA

While the values of a course in occupations are by no means confined to possibilities that are inherent in the changes in vocational and educational intentions, the changes that take place in these plans should furnish some evidence of the effects of such a course. For the purposes of noting these effects the study reported here was planned and executed.

Involved in the study were 187 boys and 201 girls in Grade IX of two junior high schools in Minneapolis. One of these schools receives pupils mainly from the better class of homes, with a few from middle-class homes. The pupils in the other school come mainly from middle-class homes. The first school serves families of a few skilled and a very few unskilled workers, but mainly the families of professional and business men. The second serves the families of a few professional men, a number of businessmen, and a few unskilled workers, but mainly those of skilled workers.

All these pupils were in classes studying "Community Life and Civic Problems," a required course in Minneapolis for all pupils in Grade IX A. The content of this course, as revealed by the printed course of study and the teachers of the eleven classes, includes a unit dealing with vocational and educational guidance. The unit covers about nine weeks of study, beginning with a general survey of occupations. Next, each pupil makes a study of his own abilities and interests and then one or more intensive studies of an occupation in which he is especially interested as a possible life-career. The last

part of the unit involves the study of educational opportunities. It includes the study of schools of different types and of the amount of education necessary and recommended for various occupations, with special emphasis on the occupational value of courses offered in the Minneapolis senior high schools. As a conclusion for the course, the pupils make their own tentative programs of studies for Grade X and in many instances programs for the last three years of senior high school.

The children studied were a slightly superior group, the boys having a mean intelligence quotient of 105.6 and the girls 108.1, as calculated from scores on the Otis Self-administering Tests of Mental Ability.

FACTORS RELATED TO CHANGE IN OCCUPATIONAL INTENTION

Each pupil was asked to state his occupational choice, if he had one, at the beginning of the course and again at the close of the course. As may be noted from Table 1, the proportions of the pupils having a choice increased materially during the experimental period, especially among the boys.

The consistency of choice is shown by Table 2. The girls tended to retain their original vocational predispositions more than did the boys, although about a fourth of each made changes in occupational choices during the semester. The boys choosing different vocations at the conclusion of the course in which occupations were studied, as well as those having no choice at the beginning, were, on the average, slightly less intelligent than those who kept to their original choices. The girls making changes were somewhat more intelligent than those retaining their original plans.

With respect to marks earned in the six junior high school semesters, boys sticking to their first vocational choices made better marks than did those making changes or those who did not have choices at the outset. No noteworthy differences were observed in the marks of the two groups of girls.

An arbitrary "efficiency index" was computed for each pupil by converting the average of marks received in the six semesters of junior high school and the intelligence-test score separately into units of standard deviation from the means and then subtracting the stand-

ard score in intelligence from the standard score in achievement. In terms of these efficiency-index scores the only noteworthy finding was that the boys who had no vocational preferences at the beginning of the course made lower achievement records in proportion to ability than did the boys who had initial preferences, the median differ-

TABLE 1
PERCENTAGES OF 187 BOYS AND 201 GIRLS WITH
OCCUPATIONAL CHOICES BEFORE AND AFTER
COURSE IN OCCUPATIONS

	Boys	Girls	Both
Before guidance.....	69.5	85.1	77.6
After guidance.....	94.7	99.0	96.9

TABLE 2
STATUS OF OCCUPATIONAL CHOICES OF 187 BOYS AND 201
GIRLS BEFORE AND AFTER COURSE IN OCCUPATIONS

	Percentage of Boys	Percentage of Girls	Percentage of Both
Same occupational choice before and after guidance.....	44.9	60.2	52.8
Different occupational choice before and after guidance.....	23.0	23.9	23.5
No occupational choice before but with a choice after guidance.....	26.7	14.9	20.6
Occupational choice before but none after guidance.....	1.6	1.0	1.3
No choice before or after guidance.....	3.7	0.0	1.8

ence being about 0.6 of a standard deviation. Girls of the high-efficiency groups tended to maintain their original preferences.

Table 3 shows that, contrary to what might be expected, more boys and more girls who underwent changes in vocational preferences chose the second time an occupation of higher level than chose an occupation of a lower level, as judged by the Barr Scale for Measuring Mental Ability in Vocations.

An attempt was made to see how many who changed their preferences chose the second time occupations presumably more

appropriate to their intelligence. The number of improved choices was slightly larger than the number of less appropriate choices.

**REASONS FOR OCCUPATIONAL INTENTIONS
AND RELATED FACTORS**

On each occasion when the pupil was asked to register his choice, he was also asked to check, among twenty-five reasons listed, the most influential reason, the second most influential reason, and the

TABLE 3

**STATUS ON BARR VOCATIONAL SCALE AND APPROPRIATENESS
TO PUPILS' INTELLIGENCE OF CHOICES OF OCCUPATIONS
MADE BY 43 BOYS AND 48 GIRLS WHO CHANGED THEIR
PREFERENCES AFTER COURSE IN OCCUPATIONS**

Level of New Choice	Boys	Girls	Both
Level of second choice on Barr scale:			
Higher.....	20	27	47
Lower.....	19	16	35
Same.....	4	5	9
Appropriateness of choice to pupils' intelligence:			
Better choice.....	17	16	33
Poorer choice.....	8	15	23
Equally good choice.....	18	17	35

third most influential reason in determining his choice. The following list shows that certain reasons rose and certain others fell markedly in relative rank assigned by these 388 pupils, presumably as the result of the course, at least in part.

**REASONS WHICH FELL MOST MARKEDLY IN IMPORTANCE
AMONG BOYS**

1. Ease of entering the occupation in this particular locality.
2. Opportunities to develop through study and travel.
3. Already had experience in the occupation.
- *4. Opportunities for doing good for people.
- *5. Good salary or income.

* The reasons marked with asterisks also made the same change in the case of the other sex.

6. I must start earning money very soon.
7. My friends suggested it.

AMONG GIRLS

1. Desire to enter same work as a friend or friends.
2. Opportunities to develop through study and travel.
- *3. Good salary or income.
4. My parents suggest it.
5. I would like the adventure, novelty, or excitement.
- *6. Opportunities for doing good for people.
7. Work would be sure and steady.

REASONS WHICH GAINED RANK MOST MARKEDLY

AMONG BOYS

1. The kind of people I would come in contact with.
2. Respect attached to people in this occupation.
- *3. Would like to do same work as a successful person I have learned about.
- *4. Good future in this occupation.
5. My father's being in this occupation will give me an advantage.
6. The work is easy.

AMONG GIRLS

- *1. Good future in this occupation.
2. Conditions and surroundings of work.
3. Good opportunities for advancement.
4. My teacher suggested it.
- *5. Would like to do same work as a successful person I have learned about.
6. Independence and freedom to develop own ideas.

Table 4 shows that the boys in this study are looking forward to vocations of higher level than those of their fathers. This finding is the same as that of other investigations.

EDUCATIONAL PLANS

Neither sex showed a material difference in the percentage of pupils planning to complete high school after the course as compared with the percentage registering that intention at the beginning. There were, however, marked increases in the percentages of pupils of both sexes who had made definite plans with respect to the curriculum that they would follow in high school. This change was particularly noticeable among pupils who had had no occupational choices at the

beginning but had preferences at the close of the semester. There was also a slight increase in the percentage (46.9 to 52.1) planning to go to college.

TABLE 4

LEVEL OF OCCUPATIONAL CHOICES OF BOYS IN COURSE IN OCCUPATIONS
COMPARED WITH LEVEL OF FATHERS' OCCUPATIONS

Son's Occupational Choice	Higher Level than Father	Same Level as Father	Lower Level than Father	Same Occupation as Father	No Occupation Listed for Father
Same occupation before and after guidance.....	58	3	9	13	1
Different occupation after guidance:					
First choice.....	34	3	6	.....	.....
Second choice.....	37	2	4	.....	.....
No occupation before but with choice after guidance.....	28	4	10	7	1
With occupational choice before but none after guidance.....	1	1	2	.....	.....
Total.....	158	13	31	20	2

CONCLUSIONS

From the time of the beginning of a semester course involving guidance activities and information concerning vocations, certain changes took place in the vocational and the educational intentions of ninth-grade boys and girls in two Minneapolis junior high schools. To some extent, at any rate, it is reasonable to attribute those changes to the guidance materials and activities in the course. Among the most noteworthy of those changes and factors related to the changes may be mentioned:

1. The percentage of pupils having chosen, at least tentatively, their future occupations increased markedly, especially among the boys.
2. Girls tended to retain their original choices more than boys, about half of the boys and 40 per cent of the girls making changes after the course in occupations.
3. The boys who revised their occupational choices were of lower-than-average intelligence, while the girls who changed their preferences were of greater-than-average intelligence.

4. Change in occupational choice is apparently not closely related to quality of marks, but the pupils who did not change their tentative vocational choices achieved more in proportion to their intelligence than those who changed their preferences.

5. There was a slight tendency for both boys and girls to shift their choices to occupations requiring workers of higher intelligence and to occupations more in harmony with their respective degrees of intelligence.

6. At the conclusion of the course pupils tended to give better reasons for their choices than they had given at the beginning; for example, they more often cited "Good future in this occupation" than "Good salary or income."

7. The boys were, on the average, looking forward to occupations of a higher level than those of their fathers.

8. There was a marked increase in the percentage of pupils who had arrived at a decision with respect to the high-school curriculum which they wished to follow and a slight increase in the number planning to go to college.

WHAT NEED FOR MATHEMATICS IN GRADE VIII?

CLAUDE F. TURNER

John Marshall Junior High School, Seattle, Washington

Why is it that Bob, an eighth-grade pupil, detests doing the problems of his daily mathematics assignment and usually does them with little attention to detail and accuracy and yet can balance his books perfectly for a paper route with a yearly turnover of several hundred dollars? May the fact that his spending money and clothing hinge on his job be the deciding factor in determining interest and accuracy? Educators have long realized that, where interest is lacking, learning lags. For ages the quest has been for methods of tying up the educative process with the life of the child. Unfortunately much of the material taught in eighth-grade mathematics has little or no relation to the immediate life of the pupil in or out of the school. One of the most practical subjects in point of use and potentially capable of becoming one of the most popular subjects in the school curriculum, mathematics has suffered great abuse in teaching.

In an effort to determine to what extent mathematics functioned in the daily school and out-of-school life of eighth-grade pupils in our school, the following survey was conceived. Three pertinent phases of the problem deserve special consideration and thought: (1) What factors determine pupils' likes and dislikes of mathematics? What methods of instruction do they prefer? How do pupils use mathematics in their out-of-school life? (2) Which mathematics topics do teachers of eighth-grade classes other than mathematics find of most value to pupils in carrying on the varied activities of their respective subjects? Which types of mathematical abilities do they find of most value—reasoning, computational, or social-informational? (3) How does the emphasis, as determined by the time allowance placed on topics, compare with the use and value of these same topics in the life of the pupil? A discussion of these three phases is presented in this article.

PUPIL OPINION

As a means of encouraging freedom of expression, pupils were asked not to identify their papers in any way. A total of 316 pupils, representing average, slow, and rapid-learning divisions, participated in the survey.

In the responses to the first question, "Why do you like the subject of mathematics?" given in Table 1, the feeling that mathematics is necessary to future vocational success and to efficient participation in the problems of the family group was rated first. The knowledge that mathematics offers present help in other school subjects and at home was recognized by second rating. Over a third of the pupils found the subject interesting and enjoyable—a finding which would indicate that the work in mathematics is within the ability range of these pupils. Typical responses from the pupils follow.

Because there is more work to it than talk.

It helps me in more ways than one. If I become a stenographer in later life, mathematics will come in handy. There has been more than one time when I have tried to figure out things and have not been able to do it because I didn't know the proper method.

Gives me mental exercise and a chance to compete mentally with others.

Mathematics has an interesting background.

It helps you in all the rest of your classes more than any other subject.

Although many instructors are making every effort to adjust the mathematics required by curriculum decree to the individual ability of the pupil and while substantial gains have been made in this direction, the answers given in Table 1 to the question, "Why do you dislike mathematics?" furnish evidence that much remains to be done. Typical responses to this question were:

When I went to grade school, mathematics was the best subject I liked. But when I go to junior high school, it seems to be harder to catch on to the problems or they are not rigged out well or harder to understand.

No matter how hard I try, I don't seem to understand different problems which makes it difficult for me. It makes me discouraged and I sometimes say, "Why do we have to have mathematics anyway?"

There is too much work in so little time.

TABLE 1

REPLIES OF 316 EIGHTH-GRADE PUPILS TO QUESTIONNAIRE ON
THE SUBJECT OF MATHEMATICS

Item	Frequency of Mention
"Why do you like the subject of mathematics?"	
Future use in home and vocation.....	163
Present use in home and school.....	121
Present enjoyment and entertainment.....	111
Present help in job out of school.....	9
Present aid to clear thought.....	4
"Why do you dislike mathematics?"	
Lack of ability and slow to understand.....	40
Too much detail; complicated and difficult to understand.....	34
Repetition of tiresome explanations; too long periods.....	18
Lack of explanation by textbook and teacher.....	13
Impractical and not necessary to enjoyment of living.....	10
Lack of time on a topic; too much to do in too little time.....	9
Dislike of tests and marks.....	5
Too much problem-solving.....	4
Uninteresting subject matter.....	3
Poor scores; discouraging lack of success.....	2
Dislike of units in geometry and insurance.....	2
Teacher takes too much time talking.....	1
Out-of-school uses of mathematics recorded in one week by 235 pupils:	
Use of money in making change, budgeting allowance, purchasing, profit or loss on sales.....	362
Counting (pages, articles, blocks walked, table service).....	102
Time (estimation of elapsed time, telling time, dates).....	85
Measuring in cookery.....	79
Measuring with ruler, tape, yardstick, scales, weight de- vices.....	70
Measuring in sewing.....	28
Games (keeping score in athletics, number games).....	57
Work (stores, paper and magazine routes).....	49
Home workshop (models of planes, boats, furniture).....	37
Counting amount of Sunday-school or church collection.....	13
Banking (postal savings and commercial)*.....	12

* Does not include school savings. Records show that about 25 per cent of these pupils participate in school banking.

A survey of the type of teaching preferred found sentiment heavily in favor of a definite number of problems to be completed each day. Blackboard lessons were second choice, while textbook study with application to life in and out of school was third. Pupil choices are undoubtedly colored by school experience. The fact remains, however, that the normal child prefers definiteness in the things he does—therefore the importance of clear-cut assignments. Long-unit assignments were placed fourth in type of teaching preferred. Resentment is too often the result of long-range assignments, whereas the same pupil will carry out shorter-period assignments and assist actively in welding these smaller units into a comprehensive whole. Is this desire for definiteness a transitory trait? If the teacher yields to this desire, will it retard the development of individual initiative? These are questions to be answered by the teacher before he can come to any valid choice of method. Schools are striving to make the educational process meaningful to boys and girls, and methods should fit the personnel of the class instructed.

The data in Table 1 on out-of-school uses of mathematics were secured by having pupils record the mathematics used for a period of one week. The tabulated results indicate that more than 40 per cent of the reported uses of mathematics have to do with financial transactions. That this need forms the major portion of mathematics used by adults is borne out by other studies.¹ The combined totals of the three types of measuring recorded rank that particular use of mathematics second in importance in the pupil's out-of-school life.

THE TEACHERS' VIEWS

Eighteen teachers of eighth-grade classes other than mathematics were asked to express opinions regarding the amount and the type of mathematical knowledge and skill needed in their particular subjects. Table 2 gives the rank by frequency of use in other classes of the topics taught in eighth-grade mathematics. The table indicates a need for accurate measurement in all classes, particularly with the foot rule, yardstick, and the tape. Understanding of graphs and abil-

¹ *Research in Constructing the Elementary School Curriculum*, pp. 35-109. Third Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1925.

ity to interpret them is a fairly constant need in the social-science and the science classes.

Teachers' responses concerning the type of mathematical knowledge needed show a division of opinion within subject-matter fields. The evidence, although not conclusive, points to greater need for computational ability in home economics and industrial arts than in the other subjects. These two fields are becoming a part of the

TABLE 2
USES MADE IN OTHER SUBJECTS OF EIGHTH-GRADE
MATHEMATICS AS REPORTED BY 18 TEACHERS

USE	FREQUENCY OF MENTION BY TEACHERS					
	Social Science	Science	Art	Home Eco- nomics	Indus- trial Arts	Total
Measurement.....	3	2	2	3	4	14
Graphs.....	6	2	1	.....	1	10
Comparisons (ratio and proportion).....	3	1	2	1	2	9
Constructing and copying figures full size and to scale.....	4	1	1	.....	1	7
Formulas.....	.....	2	.....	1	1	4
Taxation.....	2	.....	.....	.....	.....	2
Indirect measurement.....	.....	1	1	.....	.....	2
Insurance.....	.....	.....	.....	.....	.....	.....
Savings and investment and banking.....	.....	.....	.....	.....	.....	.....

school experience of every boy and girl. As such, they provide an excellent laboratory for application of mathematical concepts—concepts that too often have little or no meaning in the academic classroom. Science and social science require greater social-informational ability in mathematics than do other subject-matter fields. Both call for an understanding of large-number concepts. The teacher of mathematics not only should develop in the pupils ability to read large numbers but should also foster comprehension through comparisons. Current articles in magazines and newspapers provide a fertile field for interesting practice. Undoubtedly, choice of teaching method, the personnel of the class instructed, and the range of the

subject matter are factors conditioning the type of ability demanded for successful study in any field. The plaint of teachers is for more efficiency and accuracy with the fundamental processes and less attention to abstract concepts and symbols with specialized application or no application whatever.

Comments recorded by the teachers are indicative of needs. The ability to read page numbers and chapter heads is understood as necessary in all subjects.

TEACHERS' COMMENTS ON MATHEMATICS NEEDED IN
OTHER SUBJECTS IN GRADE VIII

SOCIAL SCIENCE AND READING

Computation of marks to two decimal places
Reading and interpreting graphs
Comparison of products of countries
Amount and volume of trade between countries
Size of countries
Fractional comparisons using large denominators
Reading dates in Roman numerals
Subtracting dates
Costs of wars in large numbers
Reading of large numbers in textbook content
Percentage application (Cases 1 and 2 mainly)

SCIENCE

Reading thermometer, barometer, and meters
Knowledge of, and ability to apply, the metric system
Multiplication of decimals
Use of fractions
With fast groups: changing centigrade readings to Fahrenheit and vice versa

ART

"Lettering is one of the problems of eighth-grade art. We try to get away from the mechanized use of the ruler and to develop the eye to judge distance and proportion."
Map-making to correlate with history and literature
Drawing to scale
Enlarging
Perspective sketching
Mounting of pictures in a given space
Geometric design
Accurate measurement

HOME ECONOMICS

Accurate measurement
Estimating material needed
Estimating total cost of a garment and comparison of this cost with the ready-made article
In sewing, how to measure with the tape and the yardstick
In cooking, children need ability to deal with fractions in order to divide a recipe. They must know equivalents in order to reduce parts of a recipe—cups to tablespoons, etc.
Ability with the fundamentals in order to figure costs and make comparisons

INDUSTRIAL ARTS

Reading the triangular scale in drawing requires fractions
Scale drawing and reading of scale drawing
Proportion and placement
Measuring and estimating
Fundamentals in computations
Transfer of feet to inches, yards to feet
The use of auger, drill, or gimlet bits makes computation in fractions necessary
Board measure, costs
Angles and degrees
Square and cubic measure
Circular terms (*circumference, radii, diameter, pi*)
Semitechnical terms (r.p.m., h.p.)¹
Use of circles in making light shades, developments in sheet metal, art-metal objects, funnels, iron scrolls, trays
Gear and pulley ratio

EMPHASIS

Emphasis can most fairly be determined by the time allowance placed on the various topics by the author of the textbook in current use by seventh- and eighth-grade classes in this school. The recommendations of the author, with slight modifications, are closely followed by teachers of these grades.

The time allowances for selected subjects are shown in Table 3. It was found that teachers ranked ability to measure accurately as a

¹ Semitechnical terms appear often in the content of popular magazines read by eighth-grade pupils. See: Claude F. Turner, "Pupils Survey Popular Magazines To Discover Needs in Mathematics," *Seattle Educational Bulletin*, XII (March, 1936), 4. (Also in *Elementary School Journal*, XXXVI [June, 1936], 731-32.)

major need in their subjects, while pupils in their out-of-school use of mathematics placed this ability second. The only definite attempt to place strong emphasis on measurement in the curriculum is a two-week period in Grade VII. In spite of the fact that pupils find it difficult to measure accurately, the schools blandly neglect the need and leave development of skill to incidental usage.

Graphs also are important to the pupil in carrying on his work in other classes and in interpreting his reading. How is this topic em-

TABLE 3
TIME ALLOWANCE FOR SELECTED TOPICS IN SEVENTH- AND
EIGHTH-GRADE MATHEMATICS AS RECOMMENDED BY
AUTHOR OF TEXTBOOK IN USE

Topic	Number of Weeks Allowed
Grade VII:	
Thrift and banking.....	3
Measurement.....	2
Graphs.....	1.5
Grade VIII:	
Beginnings in algebra (use of letters, formulas, equations, signed numbers).....	15.5
Banking (savings and investments).....	5
Indirect measurement.....	3
Taxation.....	2
Comparisons (related change).....	1.5
Graphs (optional).....	1.5
Insurance.....	1

phasized in the textbook? A period of one and one-half weeks in Grade VII is devoted to the study, construction, and interpretation of graphs. In Grade VIII another period of the same length is optional with the teacher. The emphasis in Grade VIII is mainly on the method of graphing in algebra. In all, there is a possibility that pupils may receive three weeks of instruction in graph usage out of a total of seventy-six weeks devoted to mathematics in these grades. Surely the topic is underemphasized in view of the part it plays in child and adult life of modern times.

Banking, in its various forms, receives eight weeks' time allowance in the two grades. Three weeks is devoted to a study of savings and

investments. Unless great care is exercised in the presentation of this material, it is far beyond the social comprehension, and certainly years beyond the experience, of the average eighth-grade pupil. Other phases of thrift could well be emphasized at this point and the study of banking postponed until the next grade level. Tables 1 and 2 indicate that the knowledge of banking gained in Grade VIII found little application in the life of the pupil. As a check on this information, 168 ninth-grade pupils enrolled in classes in junior business training were questioned. One hundred and twenty-four were found to be using the school savings system, twenty-four made use of commercial banks, and twenty used neither. Most of these pupils had jobs out of school and therefore had need of banking facilities. The mechanics of banking are impressed to a greater extent where immediate application is a possibility.

Comparisons were ranked third in frequency of use by teachers participating in this survey. Children must develop ability to make comparisons and to estimate probable results. It is doubtful whether any appreciable degree of skill in this respect can be developed in one and one-half weeks. Indirect measurement, functioning to a much smaller extent in the pupil's life, receives twice as much emphasis.

Beginnings in algebra receive approximately three-fourths of the time allotted to mathematics in the second semester of Grade VIII. Can this stress be justified? For those pupils who elect algebra in order to meet the academic requirements of the senior high school and the college or university, justification is not difficult. It is also true that a knowledge of the simple elements of algebra is necessary in the ordinary reading of the pupil. Of the several divisions of this topic, only the use of formulas finds expression in the pupil's school life. It is difficult to find honest justification for the excessive emphasis placed on beginnings in algebra, when over half the pupils elect the courses in junior business training in order to meet mathematics requirements for high-school graduation. The necessary facts of elementary algebra could be taught with more economy of time.

CONCLUSION

In view of the facts presented in this survey, may it not be that children's lack of interest in the study of mathematics is directly

traceable to the fact that much of the material taught has no important function in child life? As now constituted, much of the subject matter of the eighth-grade course in mathematics is socially beyond the understanding of the average eighth-grade pupil and depends for its appeal on a vague and indefinite future value. Emphasis should be placed on the mathematics needed in school and life situations. In this way the obligation to teach pupils to do better the worth-while activities of their daily life can be fulfilled. Satisfactory progress has resulted only when a study of principles has been combined with provision for their application to practical situations. Mathematics can live, but only as it becomes a real and vital part of the pupil's immediate life-experiences.

WHAT MAKES ABILITY IN ENGLISH?

J. ERLE GRINNELL
Stout Institute, Menomonie, Wisconsin

During the past generation success in the various high-school subjects has been measured with increasing objectivity. At the same time interest in the relation between general intelligence and success in a given field and between success in one field and in another has had a steady and generally wholesome growth. While much of the interest in these relations owes its greatest impetus to the desire to predict success in the high school on the basis of elementary-school work or to predict success in college on the basis of high-school achievement, a large share of it has been focused, particularly in recent years, on special subjects and subject combinations in the high school.

Believing that in the field of his major interest, English, the race is not always to the brightest nor the stigma of failure to the dullest, the writer set about obtaining data for a study of his own. Intelligence quotients derived from the Terman Group Test of Mental Ability, the Haggerty Intelligence Examination, and the Otis Self-administering Tests of Mental Ability were available from the individual pupil records in the office. The Terman and the Haggerty tests had been administered when the members of the group studied, the Senior class in high school, were in Grade VII; the Otis test had been given to them when they were in the first year of high school. To get a fourth measure, the writer used Army Alpha to test the surviving members of the Senior class. Four measures were available for 92 of the 102 members of the class. These 92 pupils were then given the Inglis Tests of English Vocabulary. Finally their English marks for the six semesters that they had been in high school were averaged.

When the averages of the four intelligence quotients for every pupil are correlated with the average English marks for the six semesters in high school by the method of the scattergram and the

Pierson product-moment correlation, the result, as shown in Table 1, is a positive correlation of .447. The correlation between English and the intelligence quotient derived from Army Alpha alone is almost identical, .449.

Brooks¹ reports a correlation of .44 between average mark in high-school English and intelligence. His data were gathered from many sources. He finds a correlation of .50 between mark in English I and general intelligence and correlations between marks of one term of high-school English and other high-school subjects ranging from .45 in algebra to .59 in history. He reports that the correlations

TABLE 1
CORRELATIONS OF INTELLIGENCE, VOCABULARY, AND
AVERAGE MARKS IN SIX SEMESTERS OF ENGLISH
FOR 92 HIGH-SCHOOL PUPILS

Items Correlated	Correlation
Mark in English and:	
Average of intelligence quotients on four tests	.447 \pm .056
Intelligence quotient on Army Alpha.....	.449 \pm .056
Scores on Inglis Tests of English Vocabulary.	.534 \pm .050
Scores on Inglis Tests of English Vocabulary and:	
Average of intelligence quotients on four tests	.697 \pm .036
Intelligence quotient on Army Alpha.....	.689 \pm .037

between ninth-grade English and intelligence quotients derived from the Illinois General Intelligence Scale and the National Intelligence Test are .23 and .28, respectively. These correlations are lower than those usually reported in such studies, but the tendency is for the correlation to become higher with increasing stay in school and with the use of the average marks for several terms of English rather than for a single term.

Some investigators have found correlations so high as to lead to a question regarding the technique employed or to a belief that too few cases were involved. The general tendency appears to be for English and intelligence to yield positive correlations not far from .45. There is general conviction, however, among investigators that success in one subject is a better criterion of success in another subject than is

¹ Fowler D. Brooks, *The Psychology of Adolescence*, pp. 566-67. Boston: Houghton Mifflin Co., 1929.

intelligence quotient. Still the fact cannot be overlooked that intelligence has a significant influence on pupil achievement. Kallom concludes on the basis of a study of intelligence tests in the classroom that a pupil scoring below the median has only two out of five chances to succeed with a program which requires an extra amount of work.¹ This statement is compatible with the findings of the present writer.

Vocabulary knowledge has been found to correlate somewhat higher with success in English than has general intelligence. Dickinson, using the Thorndike Visual Vocabulary Scale, obtained correlations of .522 with ninth-grade English and .548 with tenth-grade English.²

In this study, as in other investigations, vocabulary knowledge shows a much closer relation with intelligence than with achievement in English. The correlations reported in Table 1 are representative of those found by other investigators. This result is to be expected in view of the fact that makers of intelligence tests have depended in large measure on vocabulary ability in deriving their intelligence ratings. Yet, as has been shown, the possession of a large and adaptable vocabulary does not insure good English scholarship, nor does good English scholarship, according to present marking systems, presuppose special aptitude in vocabulary. That vocabulary ability is slightly more related to English ability than is the intelligence usually accompanying the strong vocabulary is attested by the somewhat higher correlations between mark in English and vocabulary than between mark in English and intelligence. If the factors which operate to cause the person of high intelligence to be poor in English while being good in vocabulary ability can be singled out and rendered less potent, the classroom teacher will have advanced materially in the effectiveness of his teaching. In all probability, however, these factors are such as cannot be segregated easily and, if segregated, cannot be corrected with much success under the ordinary school regime.

¹ Arthur W. Kallom, "Intelligence Tests and the Classroom Teacher," *Journal of Educational Research*, V (May, 1922), 392.

² Charles E. Dickinson, "A Study of the Relation of Reading Ability to Scholastic Achievement," *School Review*, XXXIII (October, 1925), 620.

TEACHING HIGH-SCHOOL ENGLISH AS AN INSIGHTFUL PROCESS

AUSTIN H. TURNERY AND MARY FEE
University of Kansas

THE DEFINITION OF "INSIGHT"

As a result of the emphasis by certain Gestalt schools on the idea that all learning is an insightful phenomenon,¹ the term "insight" has, during the past few years, received much attention from teachers and others interested in education. Because of the confusion in definitions of the term² no great practical use in teaching seems to have followed. Yet the present writers believe that, if the close relation between the notion of insight and the notion of *g* as set forth by Spearman is recognized, much value may accrue from the attempt to apply the knowledge of these ideas to teaching in a practical way.

Though definitions of "insight" vary, the term will here be used to refer to the seeing of relationships, such as occurs when meaning is established in vocabulary, when problems are solved or hypotheses formed, etc. The term *g* will refer to quantitative aspects of the ability to see relationships. As yet, the intelligence quotient or the mental age offers the most practical index of individual differences in this ability although it has been suggested elsewhere that, when chronological age is not constant, some combination of mental age and intelligence quotient probably offers a closer measure of individual differences in *g* than one or the other of these indexes alone.³

Recently one of the present writers has suggested the value of both

¹ a) George W. Hartmann, *Gestalt Psychology*. New York: Ronald Press Co., 1935.
b) Raymond Holder Wheeler and Francis Theodore Perkins, *Principles of Mental Development*. New York: Thomas Y. Crowell Co., 1932.

² a) George W. Hartmann, "Concept and Criteria of Insight," *Psychological Review*, XXXVIII (May, 1931), 242-53.

b) George W. Hartmann, "Insight vs. Trial-and-Error in the Solution of Problems," *American Journal of Psychology*, XLV (October, 1933), 663-77.

³ Austin H. Turney, "The Psychological Basis of Grouping," *The Grouping of Pupils*, pp. 81-115. Thirty-fifth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1936.

these concepts for educational procedure.¹ This article has the two-fold purpose (1) of attempting to show the practical value of applying these two ideas to the teaching of English and (2) of presenting certain fragmentary data secured in a preliminary experimental try-out of such teaching. There was also involved in the experiment a simple ability-grouping project, but this project is not a major aspect of the experiment and is not of major importance to the thesis here explained.

THE PROCEDURE

The experiment embraced the teaching of literature in the high-school Freshman and Sophomore classes of Oread Training School, of the University of Kansas, during the first semester of the school year 1935-36. In order that the teachers might have opportunity to individualize instruction with the least possible handicap, each of these two classes was sectioned into two groups on the basis of the following tests: (1) Otis Self-administering Tests of Mental Ability, Higher Examination, Form A; (2) Kuhlmann-Anderson Intelligence Tests, Grade IX to Maturity; and (3) Iowa Silent Reading Tests, Advanced Test, Form A (revised). The major basis of sectioning in both classes was the intelligence quotient although some consideration was given to reading ability. In neither class was there any pupil who might be considered below average in intelligence. For all the pupils involved in the study the intelligence quotients derived from the Otis test ranged from 94 to 153, with the median at 109. The intelligence quotients derived from the Kuhlmann-Anderson test were somewhat consistently higher, ranging from 89 to 158, with the median at 111. The Sophomore class sections had a slightly greater range in intelligence quotients than had the Freshman sections.

The first-semester curriculums in literature were at once established for the two grade levels: one for both Freshman sections and another to be used by both Sophomore sections. The literature course for the Freshman sections was planned with respect to difficulty and amount to challenge the energy and the intelligence of the brightest pupil of the greater-ability group, but the pupils of both the brighter and the duller sections were presented with all the selections in the curriculum of their grade level.

¹ *Loc. cit.*

It was purposed to discover: first, whether brighter pupils would gain more (and, if so, how much more) than duller pupils in ability to see relationships when this ability was measured by objective tests which had been devised as far as possible for the especial purpose of measuring such ability applied to literary selections; second, what relation might exist between measures of mental ability and achievement when both the curriculum and the testing were built with guiding concepts that development in English can be an insightful process and that optimum development for each child should mean a high relation between ability and achievement.

The literature work of the semester was interspersed with oral and written expression and other work properly belonging to the composition course. Results from the latter were, however, not included in this study. The required selections chosen for study in the literature courses included the following types: plays, novels, short stories, essays, long narrative poems, lyric poems, humorous poems, elegies, dramatic poems, and metrical romances. Class periods were devoted largely to discussion of the selections. By this means the teachers attempted to direct the pupils how to read most advantageously each type of selection; to motivate the pupils to discover the relationships concerning the plot, characters, situations, or other phases; to help the pupils to understand and enjoy many types of literature for the new experiences which they provide; to aid pupils in establishing standards of evaluation and appreciation by making accessible to them excellent selections of literature which are of suitable difficulty to stimulate reflective thinking; and to develop understanding and insight by requiring literature to be interpreted in relation to the pupil's own life. At all times there was a specific effort to avoid the memorizing of information merely for the sake of information, but the development of enjoyment and of appreciation through understanding was constantly kept in the minds of the teachers as an important objective.

Achievement was measured by comprehensive objective tests covering the entire literature courses for the semester. As previously indicated, an especial effort was made to produce tests every statement of which would demand not merely memory but an ability to think and to see relationships. The tests consisted of true and false

statements; multiple-choice statements; completion statements; vocabulary tests, in which there was the possibility of the choice of a word most nearly synonymous with a word to be defined; and the identification of quotations. The Freshman test included 346 items; the Sophomore, 424. It cannot be said with finality that each statement surely involved the ability to see relationships, but the test-makers earnestly endeavored to achieve that result.

The tests were applied at the mid-semester and again at the end of the semester. No other tests were given. The method of comparing results was that of inspection and correlation. The brighter and the duller sections of each class level were compared and also the two sections considered as a single group.

RESULTS

The results obtained from the two comprehensive objective tests are shown in Table 1. This table shows the scores on the first and the second tests and the gains for each pupil in both the high and the low sections. In both the Freshman and the Sophomore classes the high sections showed, on the average, greater scores than the low sections on both applications of the test. However, in the case of the Sophomores the bright section made a lower average gain than the dull section—the reverse of the situation shown for the Freshman class. In the judgment of the writers there are two possible explanations for this reversal. First, the teacher of the bright section may have been less conversant with the concepts basic to this experiment. Second, the fact that in practically every instance the bright section made a higher score than the highest of the duller section in both the first and second testing (only two of the duller section exceeded the lowest of the bright section) raised a problem frequently overlooked, namely, the difficulty of maintaining a developmental situation in any subject-matter field when the pupils *seem* to be doing well. They may seem to be doing satisfactory work and yet, from the point of view of development in relation to their capacity to develop, are doing poorly. It is the latter explanation that seems the more plausible in this case although the former probably played a part.

Some of the bright pupils in the Sophomore class had probably come into contact with the selections studied in other than school situations, but no pupil had studied these selections in this school.

The more important data concerning our attempt are shown in Table 2, which presents coefficients of correlation between the variables. Although the cases are few and certain contradictions are

TABLE 1

GAINS MADE BY HIGH AND LOW SECTIONS OF FRESHMAN AND SOPHOMORE
ENGLISH CLASSES ON TESTS DESIGNED TO SHOW
ABILITY TO SEE RELATIONS

PUPIL	FRESHMEN*			SOPHOMORES†		
	First Score	Second Score	Gain	First Score	Second Score	Gain
	High Section (Teacher A)			High Section (Teacher B)		
1.....	150	305	155	259	329	70
2.....	175	297	122	254	325	71
3.....	102	289	187	221	313	92
4.....	122	285	163	203	292	89
5.....	148	280	132	204	287	83
6.....	97	263	166	206	265	59
7.....	92	254	162	195	259	64
8.....	117	246	129	193	254	61
9.....	92	237	145	187	253	66
10.....	117	220	103	174	221	47
Mean...	121.2	267.6	146.4	209.6	279.8	70.2
	Low Section (Teacher B)			Low Section (Teacher A)		
11.....	123	249	126	129	276	147
12.....	146	243	97	96	271	175
13.....	90	226	136	70	218	148
14.....	122	221	99	66	210	144
15.....	95	214	119	82	205	123
16.....	127	210	83	89	197	108
17.....	111	201	90	49	168	119
18.....	119	196	77	80	166	86
19.....	101	184	83	.....	.....	.....
Mean...	114.9	216.0	101.1	82.6	213.9	131.3

* Best possible score, 346.

† Best possible score, 424.

apparent, there are, in the opinion of the writers, some rather strong indications that the fundamental conceptions on which the courses were built and taught are fruitful. The contradictions in the corre-

lations are better understood in connection with—in fact, are not destructive to—the guiding hypothesis, as the following comments will show.

TABLE 2
RANK-DIFFERENCE CORRELATIONS OF SCORES ON MENTAL ABILITY AND
SCORES ON ENGLISH TESTS MADE BY HIGH AND LOW
SECTIONS OF FRESHMEN AND SOPHOMORES

MEASURES CORRELATED	FRESHMEN			SOPHOMORES		
	High Section (Teacher A)	Low Section (Teacher B)	Both Sections	High Section (Teacher B)	Low Section (Teacher A)	Both Sections
First test score and:						
Mental age on Otis test.....	.74	-.28	.21	.68	.82	.89
Mental age on Kuhlmann-Anderson test.....	.29	-.56	.04	.36	.29	.54
Intelligence quotient on Otis test	.76	.03	.23	.59	.90	.86
Intelligence quotient on Kuhlmann-Anderson test.....	.51	-.38	.15	.48	.25	.64
Combination of mental age and intelligence quotient on Otis test.....	.81	-.22	.24	.73	.92	.91
Combination of mental age and intelligence quotient on Kuhlmann-Anderson test.....	.38	-.46	.03	.51	.07	.59
Second test score and:						
Mental age on Otis test.....	.97	.01	.83	.68	.72	.85
Mental age on Kuhlmann-Anderson test.....	.79	-.35	.77	.28	.80	.57
Intelligence quotient on Otis test	.87	.40	.86	.56	.45	.71
Intelligence quotient on Kuhlmann-Anderson test.....	.88	.44	.85	.38	.72	.56
Combination of mental age and intelligence quotient on Otis test.....	.95	.22	.85	.71	.69	.85
Combination of mental age and intelligence quotient on Kuhlmann-Anderson test.....	.80	-.37	.78	.41	.78	.59

In Table 2 it is readily seen that for all the Freshmen the correlations in the case of the final testing show a definitely higher relation between ability and achievement than in the case of the first testing. Teacher B, as previously indicated, was undoubtedly more handicapped than Teacher A in her initial understanding and ability to carry into practice the idea basic to the plan. This difference showed

up markedly in the Freshman class of Teacher B, where one or two outstanding problems of motivation occurred. With a small number of pupils a few such cases would materially affect the correlation. Yet it is just this phenomenon that emphasizes, in part, the value of the technique. In many so-called "activity" classes an apparently satisfactory learning situation may appear so far as a group as a whole is concerned, but on closer scrutiny it may be revealed that the abler pupils are by no means making optimum development if by "optimum development" is implied intellectual development in proportion to ability.

In general, the final correlations reveal a high relation, much higher than those usually published, between achievement in high-school English and measures of "intelligence" and "mental ability." In this connection attention might be called to the correlations which appear in boldface figures in Table 2.

These data, fragmentary as they are, seem therefore to indicate rather strongly the value of selecting subject matter, teaching, and testing with the idea in mind that development in English (as in most subject matter) can be an insightful, or relation-seeing, process and that optimum development for each child must result in a high relation between an index of individual difference in *g* and achievement.

By such a statement the writers do not wish to imply that they are opposed to any of the modern notions now advanced under such labels as "developing the whole child" or any modern technique of teaching English, such as free reading. Sound interpretation of progressive education must avoid discarding scientific bases. If English is to play its proper part in educating for a complex changing society, it must not only select subject matter to fit into such a program,¹ but it must teach the subject matter so that each child's ability is maximally utilized. The best stable method that can at present be used for scrutinizing subject matter and method for the latter purpose is a correlation technique using the best measure of *g* that can be found and more valid measures of achievement than those now available.

¹ John Dewey and John L. Childs, "The Underlying Philosophy of Education," *The Educational Frontier*, chap. ix. New York: D. Appleton-Century Co., Inc., 1933.

THE HOME AND ADOLESCENT READING INTERESTS

HAROLD H. PUNKE

Georgia State Woman's College, Valdosta, Georgia

The home is important in the leisure-time interests of adolescents. Normally the adolescent spends much of his leisure at home during the non-school hours of the day, in the evenings, or during week ends. If, then, the leisure activities which a person learns to enjoy during youth become the leisure-time habits of adulthood, the kind of influence that the home exerts over leisure-time reading habits in youth is of great importance, since most of a person's reading in adulthood is "leisure-time" rather than "required" reading.

The present article deals with the kinds of material read by high-school pupils in newspapers and current periodicals. It is part of a larger study relating to pupils in eleven white high schools in Georgia and eleven Illinois high schools.¹ Information was secured through a questionnaire covering the pupils' backgrounds and interests.

Material read in newspapers.—Data appear in Table 1 on the parts of newspapers which pupils read. The percentages of the pupils who are interested in comics and pictures are larger than the percentages of pupils who are interested in other parts of the newspaper. Senior boys in Illinois, who give more attention to sports than to comics, constitute an exception to this finding. The percentages of pupils interested in comics show no consistent difference between the sexes nor between the states.

Sports come second in newspaper-reading, although the rankings of this item for the various groups are not so consistent as the rankings of comics. The percentages clearly show a difference between the sexes with respect to interest in sports.

More girls than boys show interest in stories and in editorials. Georgia girls are outstanding in their interest in the society and

¹ See: Harold H. Punke, "Home and Family Background of High-School Pupils," *School Review*, XLIV (October, 1936), 597-607.

fashion features of newspapers. Boys show little interest in these three items.

TABLE 1

PERCENTAGES OF PUPILS IN ELEVEN GEORGIA AND ELEVEN ILLINOIS HIGH SCHOOLS WHO READ VARIOUS PARTS OF NEWSPAPERS

PART OF NEWSPAPER READ	FIRST-YEAR PUPILS		FOURTH-YEAR PUPILS		PUPILS IN ALL GRADES	
	Boys	Girls	Boys	Girls	Boys	Girls
Advertising:						
Georgia.....	0.3	0.3	0.0	0.0	0.3	0.2
Illinois.....	1.0	1.0	0.8	2.4	1.0	1.7
Comics and pictures:						
Georgia.....	59.2	60.5	98.5	60.9	64.9	60.7
Illinois.....	61.0	69.4	44.6	52.0	54.5	63.5
Editorials, book reviews, and art discussions:						
Georgia.....	2.4	1.5	6.6	7.6	2.5	4.3
Illinois.....	3.8	2.7	7.4	14.0	4.7	8.2
Educational subjects:						
Georgia.....	0.3	0.6	1.0	0.4	1.0	0.7
Illinois.....	0.3	1.3	0.4	0.4	0.3	0.6
Financial and market news:						
Georgia.....	0.7	0.0	1.0	1.3	1.2	1.0
Illinois.....	0.0	0.0	0.4	0.0	0.2	0.5
Front page:						
Georgia.....	22.8	14.9	28.3	23.0	22.5	15.2
Illinois.....	1.0	3.0	7.0	6.8	2.4	4.0
Local news:						
Georgia.....	6.8	6.7	12.6	14.7	8.3	9.4
Illinois.....	12.2	26.9	20.7	30.4	15.4	30.0
National news:						
Georgia.....	4.1	10.6	5.6	6.7	4.6	8.1
Illinois.....	4.2	5.1	2.1	4.4	4.8	4.7
Society and fashion news:						
Georgia.....	2.0	22.8	0.5	22.3	1.1	20.4
Illinois.....	0.3	6.1	0.4	6.0	0.4	4.1
Sports:						
Georgia.....	36.4	10.9	56.6	28.6	48.9	23.5
Illinois.....	50.9	22.2	52.5	27.2	51.2	24.7
Stories:						
Georgia.....	2.0	4.3	1.5	15.1	1.6	10.3
Illinois.....	2.8	7.1	1.7	7.6	1.8	8.1
World news:						
Georgia.....	7.8	5.8	9.1	5.0	8.2	5.2
Illinois.....	8.7	11.1	8.7	15.2	8.2	12.0
Number of pupils reporting:						
Georgia.....	204	329	198	238	971	1,224
Illinois.....	287	297	242	250	1,040	1,064

More Illinois than Georgia pupils seem interested in local news. There are no significant differences between the states with respect

to interest in national or world news, although the percentage of Illinois girls showing interest in world news is somewhat greater than the percentage of other groups. More Georgia pupils than Illinois pupils report interest in the front page as a whole.

The percentages indicate no particular interest by any pupil group in the advertising nor in articles on finance and on educational subjects.

Material read in magazines.—Current reading interests of youth are reflected by material read in magazines as well as that read in newspapers. The types of magazine material read by high-school pupils are shown in Table 2.

Passing reference may be made to certain categories of Table 2 in which no particular interest is manifested. Little interest in detective stories is found, particularly among the girls. Essentially the same is true of murder and of mystery stories. No great amount of interest in motion-picture stars appears, but more girls than boys report that they read articles about these celebrities. Little interest is shown in historical articles and in articles relating to professions and professional careers; more Illinois pupils than Georgia pupils show interest in articles of the latter type.

Boys show interest in articles dealing with adventure and travel and with mechanics, although the percentages of pupils reading such articles, except in the case of Illinois boys who read about mechanics, decline from Freshman to Senior year, especially among the Georgia pupils. More girls than boys show interest in material dealing with love and romance, but a fairly large percentage of Illinois boys report that they read this material. More Illinois girls than Georgia girls report interest in the fashion features of current magazines, although more Georgia girls, as already noted, report interest in the society and fashion features of newspapers. Interestingly, the percentage of all the Illinois boys who read fashion material in magazines is larger than the corresponding percentage for all the Georgia pupils of either sex.

More Illinois than Georgia pupils show interest in educational articles, although there is an exception to this statement in the case of Seniors. More Georgia pupils, especially Seniors, show interest in politics. More Georgia pupils also show interest in articles which are

TABLE 2
PERCENTAGES OF PUPILS IN ELEVEN GEORGIA AND ELEVEN ILLINOIS HIGH
SCHOOLS WHO READ VARIOUS TYPES OF MAGAZINE MATERIAL

TYPE OF MATERIAL READ	FIRST-YEAR PUPILS		FOURTH-YEAR PUPILS		PUPILS IN ALL GRADES	
	Boys	Girls	Boys	Girls	Boys	Girls
Adventure and travel:						
Georgia.....	25.5	7.1	7.0	6.7	11.3	4.7
Illinois.....	28.1	8.7	11.9	6.4	22.3	9.3
Detective stories:						
Georgia.....	6.4	0.0	7.0	3.3	3.8	0.9
Illinois.....	4.1	0.7	1.4	0.0	1.8	0.2
Educational articles:						
Georgia.....	2.1	0.0	23.3	20.0	7.0	11.7
Illinois.....	12.3	18.8	14.0	13.5	13.5	15.8
Fashion:						
Georgia.....	17.0	5.4	4.7	13.3	10.8	5.2
Illinois.....	19.2	46.3	14.7	48.2	21.5	45.4
History:						
Georgia.....	0.0	0.0	0.0	0.0	0.0	0.0
Illinois.....	1.4	0.0	1.4	0.7	2.3	1.9
Law:						
Georgia.....	0.0	0.0	0.0	0.0	0.0	0.0
Illinois.....	0.0	0.0	0.0	0.0	0.0	0.0
Love stories:						
Georgia.....	0.0	8.9	9.3	16.7	2.8	13.1
Illinois.....	12.3	29.5	17.5	28.4	16.4	28.7
Mechanical subjects:						
Georgia.....	29.8	16.1	7.0	3.3	11.3	5.6
Illinois.....	23.3	0.0	24.5	5.0	25.0	3.2
Motion-picture stars, stories of:						
Georgia.....	0.0	0.0	4.7	10.0	1.4	2.8
Illinois.....	0.0	3.4	0.0	1.4	0.0	1.9
Murder stories:						
Georgia.....	4.3	0.0	0.0	0.0	2.8	1.4
Illinois.....	6.2	3.4	4.2	0.7	5.1	2.8
Mystery stories:						
Georgia.....	2.1	7.1	2.3	0.0	5.6	2.3
Illinois.....	4.8	2.0	2.8	0.7	4.7	2.2
Political articles:						
Georgia.....	4.3	5.4	30.2	46.7	16.0	16.0
Illinois.....	1.4	3.4	14.7	15.6	9.6	10.1
Professions and professional careers, articles relating to:						
Georgia.....	0.0	0.0	4.7	0.0	0.9	0.0
Illinois.....	5.5	3.4	4.9	1.4	5.5	3.0
Sociological articles:						
Georgia.....	23.4	58.9	27.9	6.7	41.8	45.1
Illinois.....	11.6	6.0	8.4	5.7	10.2	5.6
Number of pupils reporting:						
Georgia.....	47	56	43	30	213	213
Illinois.....	146	149	143	141	512	537

sociological in character, although the average difference between the percentages for the two states is less among Seniors than among Freshmen.

Magazines read.—Reading interests of youth can further be understood by a study of the magazines read. Table 3 lists the magazines designated by eleven or more pupils, together with the frequency of listing.

Scrutiny of the table reveals a group of magazines with wide appeal for both sexes. This group includes *American Magazine*, *Collier's*, *Country Gentleman*, *Liberty*, *Literary Digest*, and *Saturday Evening Post*. Among boys these magazines were reported 594 times; among girls, 563 times. Magazines of this group are more popular among Seniors than among Freshmen, the frequencies being: Senior boys, 178; Senior girls, 149; Freshman boys, 130; Freshman girls, 128.¹

Another group of magazines appeals primarily to boys, namely, *American Boy*, *Boys' Life*, *Detective Story Magazine*, *Open Road for Boys*, *Popular Mechanics Magazine*, *Popular Science Monthly*, *Western Story Magazine*, and *Wild West*. For boys of both states there is a total of 559 frequencies for these magazines. A marked decline in the popularity of these magazines appears in passing from Freshman to Senior year. Freshmen mentioned these magazines 211 times and Seniors 85 times.

A third group of magazines appeals primarily to girls. This group includes *Better Homes and Gardens*, *Cosmopolitan*, *Delineator*, *Good Housekeeping*, *Ladies' Home Journal*, *McCall's Magazine*, *Pictorial Review*, *Red Book Magazine*, *True-Story Magazine*, *Woman's Home Companion*, and *Woman's World*. These magazines account for 921 of the total of 1,877 frequencies for girls. The magazines of this group, however, show no such decline in popularity from Freshman to Senior year as do the magazines appealing to boys. Freshmen mentioned these magazines 226 times and Seniors 231 times. Appreciable decline within the group is noted from Freshman to Senior year in the case of *True-Story Magazine*, *Woman's Home Companion*,

¹ Slight variations in the total frequencies for individual magazines in the first and fourth years do not invalidate this comparison or subsequent general comparisons between grades, for example, the frequencies given for *American Magazine* for Georgia girls.

and *Woman's World*, and significant increase in the case of *Cosmopolitan* and *Delineator*.

TABLE 3

MAGAZINES READ BY ELEVEN OR MORE PUPILS IN ELEVEN GEORGIA
AND ELEVEN ILLINOIS HIGH SCHOOLS AND FREQUENCY
OF MENTION OF EACH

NAME OF MAGAZINE	NUM- BER OF PU- PILS RE- PORT- ING MAGA- ZINE	FIRST-YEAR PUPILS				FOURTH-YEAR PUPILS				PUPILS IN ALL GRADES			
		Boys		Girls		Boys		Girls		Boys		Girls	
		Geo- gia	Illi- nois	Geo- gia	Illi- nois	Geo- gia	Illi- nois	Geo- gia	Illi- nois	Geo- gia	Illi- nois	Geo- gia	Illi- nois
American	345	14	15	16	19	17	34	12	35	64	94	70	117
American Boy	117	25	19	2	1	1	1	3	2	64	44	5	4
American Girl	17	1	0	8	4	0	1	0	0	2	1	9	5
Better Homes and Gardens	20	0	1	4	2	1	0	3	1	1	2	13	4
Boys' Life	108	18	16	0	2	10	0	0	0	60	36	0	3
Collier's	230	20	8	15	9	23	15	22	9	77	46	71	36
Comfort	23	1	1	1	5	1	0	3	3	3	2	5	13
Cosmopolitan	141	4	4	11	4	14	2	26	1	5	10	40	10
Country Gentleman	91	2	11	2	13	5	9	0	0	1	0	6	2
Country Home	13	0	0	0	2	0	0	0	0	0	0	2	4
Current History	11	0	0	0	0	0	0	0	0	0	0	0	5
Delineator	81	1	0	8	6	0	1	17	0	4	3	43	31
Detective Story	38	5	6	0	0	0	5	0	0	0	10	1	3
Farmer's Wife	14	0	0	0	0	0	0	0	0	0	0	2	8
Golden Book	17	0	0	3	0	1	0	0	0	1	1	0	6
Good Housekeeping	209	4	0	1	3	0	0	37	7	25	6	154	24
Harper's	22	1	0	2	1	0	0	3	2	4	9	3	5
Household	36	0	1	2	4	0	2	1	7	0	7	6	23
Ladies' Home Journal	185	2	1	20	13	3	3	30	13	14	36	123	40
Liberty	133	12	8	9	9	9	10	4	7	41	39	30	23
Literary Digest	175	8	15	2	18	11	21	17	17	33	54	38	50
Love Story	24	0	1	2	3	3	0	1	2	4	2	9	9
McCall's	17	2	0	2	16	21	1	3	19	22	7	13	74
Movie*	23	2	0	4	5	5	0	0	2	2	0	10	11
National Geographic	23	1	2	0	0	4	1	1	2	1	6	7	7
Open Road for Boys	36	14	3	0	1	0	0	0	0	26	7	2	1
Pathfinder	33	0	4	1	5	0	3	1	4	0	13	4	16
Photoplay	12	0	0	0	1	0	0	4	0	1	0	8	3
Physical Culture	13	0	1	1	4	0	1	1	1	1	1	3	6
Pictorial Review	75	1	1	0	4	4	2	5	5	10	4	34	27
Popular Mechanics	185	17	15	6	0	0	13	20	0	4	48	54	7
Popular Science Monthly	137	15	27	6	11	10	0	6	1	0	2	33	13
Prairie Farmer	53	0	5	0	0	0	1	1	0	0	0	29	1
Ranch Romances	12	0	1	0	0	1	0	0	0	1	0	1	1
Reader's Digest	48	0	1	1	1	1	3	5	3	6	8	13	7
Red Book	63	4	2	6	4	6	2	9	3	15	6	29	13
Review of Reviews	37	1	0	0	8	4	0	4	3	2	10	6	4
Saturday Evening Post	183	6	11	12	8	15	9	10	10	61	35	53	34
Scholastic	18	0	0	0	0	1	0	0	2	2	8	0	18
Science	11	0	3	0	0	1	0	3	1	1	4	3	3
Sportsman	24	0	1	0	0	0	4	2	4	0	6	0	1
Time	25	2	1	2	0	4	2	2	2	12	5	4	4
True Story	77	1	5	7	14	1	2	0	2	6	10	10	45
Weekly News Review	13	0	0	0	0	0	1	2	4	0	2	3	7
Western Story	49	2	13	1	1	0	2	0	0	0	4	37	3
Wild West	32	9	7	0	0	2	0	0	0	20	11	1	0
Woman's Home Companion	59	2	2	7	12	0	3	2	8	4	7	18	30
Woman's World	26	0	0	3	5	0	0	2	2	3	1	9	13
Total	3,426	195	215	230	226	194	194	254	217	753	796	994	883

* "Movie" was the designation used by the pupils on the questionnaire. This designation probably refers to several magazines with titles which include "movie."

A fourth group of magazines has limited appeal for both sexes. The group includes the more serious magazines: *Current History Magazine*, *Golden Book*, *Harper's Magazine*, *National Geographic Magazine*, *Pathfinder*, *Reader's Digest*, *Review of Reviews*, and *Weekly News Review*. This group accounts for 193 of the total of 3,426 frequencies for both sexes. A notable increase in frequencies for this group appears from Freshman to Senior year: from 29 to 69. No particular difference appears in the interests of the sexes for these magazines. Certain of the magazines listed circulate primarily in only one of the states, although they were listed by members of both sexes, namely, *Farmer's Wife*, *Pathfinder*, *Prairie Farmer*, and *Scholastic*.

Summary and conclusions.—Some overlapping may appear in the categories used in Tables 1 and 2, or other categories might have been used. Moreover, in some categories, particularly in Table 2, the data presented are somewhat meager. Nevertheless, certain concluding remarks seem justified.

1. In general, Georgia youth seem more interested in the front page of newspapers than Illinois youth, and their magazine-reading shows that they are also more interested in politics. Georgia girls read about fashions largely in newspapers, but the Illinois girls secure this information from current magazines.

2. Most of the newspaper-reading of the youth of both states apparently consists in the reading either of local news or of the transient and superficial material characterized by comics, sports, and fashions. This finding raises the question: Should not high-school youth be led to look on newspapers as possible sources of information useful in understanding current society, instead of considering them primarily as a means of diversion and light entertainment? If parents or educators think that newspapers might be useful in the former capacity, perhaps some training could be given youth in the reading of newspapers, or more selection could be exercised in the kinds of papers made available.

3. Some of the most important differences between pupils with respect to reading interests are reflections of differences in sex. Typical sex differences are revealed in the interest in romance, society, and fashion (appealing largely to girls) and in adventure, sports, and mechanics (of more interest to boys).

One point deserves further comment, namely, the change of interest from one school grade to another. Some changes can be noted in Table 2, but the differences are greater in Table 3, particularly in the case of the boys. Earlier reference has been made to the decline from Freshman to Senior year in the popularity of boys' magazines and to the lack of change among the magazines which appeal primarily to girls. The reader's acquaintance with magazines of the two groups will suggest that the boys' magazines are more immature than those appealing to girls. What, then, shall boys read as they advance through high school? Different interests in life from those served by women's magazines, as well as a fear of being considered "sissies," deter boys from reading magazines appealing to women and maturing girls. The magazines appealing to both sexes (*American Magazine*, *Collier's*, *Country Gentleman*, *Liberty*, *Literary Digest*, and *Saturday Evening Post*) help to meet the boys' needs, but the stories and other material in magazines of this group appear to be as well adapted to girls as to boys, as is indicated by the relative frequencies for the two sexes. This group of magazines does not particularly foster the interests of either sex. It seems that no body of periodical literature available to the average high-school boy supplies him with material which leads him into thinking in terms of his role in mature life, as women's periodicals thus lead girls. Literature for boys could perhaps deal with such matters as the need for choosing a vocation; the opportunities, demands, and stability of various vocations and professions for men; the rights, duties, and responsibilities of the husband and father in the home; and the relative places of men and of women in shaping the personalities of youth in the home, at school, on the public playground, and elsewhere.

4. A point which deserves further comment grows out of the scant attention given by youth to the more serious magazines. Does this difference mean that there is too great a gap in content and method of treatment between such periodicals as the *American Magazine*, *Saturday Evening Post*, *Ladies' Home Journal*, and *Pictorial Review* on the one hand and *Current History Magazine*, *Harper's Magazine*, *Reader's Digest*, or *Review of Reviews* on the other? If there were a somewhat easier gradation in the periodical literature available, might youth be guided into a more extensive acquaintance with this

more serious literature? If the magazines of the serious type which are actually listed by high-school youth were available in the homes of a larger proportion of the pupils, would their reading of this literature be more extensive?

5. What can be done to improve the present situation and who should do it? Earlier comment related to the possibility of training youth in reading newspapers. Much the same thought applies to magazines. The school seems the most feasible place for such organized training as may be given because the school can provide a fairly wide range of reading material for study, has large groups of youth together who need similar training, and can provide trained persons to do the needed teaching. (Many parents are only slightly less handicapped in their reading of current literature than are adolescents and are often no more aware of their limitations.)

In another article the author presents evidence indicating that high-school youth do most of their leisure-time reading at home.¹ If habits of reading are to carry over into adult life, youth should gradually attach habits of doing such reading to a home setting rather than to a school setting. It follows that the home becomes a potent influence in determining leisure-time reading habits of youth. This influence is exerted in the type of material available in the home for reading; in the kind of space, lighting, and other reading facilities that are provided; and in the example and the attitudes of the parents themselves.

The two preceding paragraphs relate to aspects of adolescent reading interests in which the school and the home may function, each without particular regard to the other. Possibly parent-teachers' associations and similar agencies offer avenues for so co-ordinating efforts that each of these institutions may become more clearly aware of its own possibilities and shortcomings in relation to those of the other. Much can be accomplished if each institution considers the rearing and the education of the coming generation as one of the most significant activities in which the mature generation can engage.

¹ Harold H. Punke, "Sociological Factors in the Leisure-Time Reading of High-School Students," *Library Quarterly*, VII (July, 1937), 332-42.

SELECTED REFERENCES ON THE ORGANIZATION OF SECONDARY EDUCATION

GRAYSON N. KEFAUVER AND GORDON N. MACKENZIE
Stanford University

The number of references dealing with the problem of secondary-school organization is somewhat smaller than the number reported in last year's list. However, the same two topics stand out as of major concern to writers in this area. The "Junior College" and "Youth Programs" again receive as much attention as the total of all other divisions in the list. Limitations of space make necessary the exclusion of a number of descriptions of local situations and discussions of personal opinion. Several accounts of local developments which represent important innovations have been included. The general availability of materials has been considered in the preparation of this list.

ARTICULATION OF SCHOOL UNITS

482. "Commercial Subjects in Admission to College," *School Review*, XLIV (October, 1936), 566-68.
An abstract of a questionnaire study, made by John W. Rau, Jr., and J. Raymond Smith, on the acceptability of commercial subjects for admission to 266 higher institutions as of November, 1935.

483. JACOB, PEYTON (Chairman). "Committee on Articulation," *Junior College Journal*, VII (May, 1937), 493-95.
Report of the Committee on Articulation of the American Association of Junior Colleges, including the summary of a brief questionnaire study of the specific subject-matter requirements made by American colleges and universities of junior-college transfers. Recommendations on articulation are included.

484. *Studies in Articulation of High School and College*, Series II. University of Buffalo Studies, Vol. XIII. Buffalo, New York: University of Buffalo, 1936. Pp. 352.
Bulletin 1, "The Anticipatory Examination," by Henry C. Mills and Ruth E. Eckert; Bulletin 2, "Articulation in English," by Mary E. Sarbaugh; Bulletin 3, "Academic Success of Various Age and Experience Groups," by Eunice Strabel; Bulletin 4, "Patterns of High School Performance," by Ruth E. Eckert and Henry C. Mills; Bulletin 5, "Studies in Academic Motivation," by Mazie

Earle Wagner; Bulletin 6, "Effect of Home Surroundings on Academic Achievement," by Mary E. Sarbaugh; Bulletin 7, "Differences between High School and College in Methods of Instruction," by Henry C. Mills; Bulletin 8, "The Significance of Curriculum Choice," by Ruth E. Eckert; Bulletin 9, "Reading Ability in High School and College," by Mazie Earle Wagner.

HORIZONTAL ORGANIZATION

485. MARSHALL, R. C. "Learning on the Job," *Nation's Schools*, XVIII (July, 1936), 12-15.
Describes the organization and the operation of the Jacksonville (Florida) plan for co-operative education by the school and by business and industry.

486. ROSENSTENGEL, W. E., and DIXON, FRED. "Apprentices in Stores and Shops," *Clearing House*, XI (September, 1936), 47-51.
Describes the plan and the administrative arrangements for training high-school pupils of Columbia, Missouri, in various occupations.

487. SMITH, LEWIS W. "Developing an Opportunity High School in a City School System," *School Review*, XLIV (December, 1936), 737-43.
An account of the development of continuation education in Berkeley, California, since 1920. Special attention is devoted to the enrolment, the purposes, and the occupations of students served.

VERTICAL ORGANIZATION

488. HARDIN, ROBERT A. "Maturity of Four Groups of Students," *Junior College Journal*, VII (October, 1936), 16-18.
An attempt to determine the best plan of organization on the basis of differences in intellectual and emotional maturity at succeeding levels as measured by the Ohio State University Psychological Test and the Pressey Interest-Attitude Tests.

489. WILKINS, ERNEST H., BURTT, CARL D., and ROGERS, CHARLES G. "Growth-Demands and the Main Institutional Divisions of Education," *School and Society*, XLIV (November 21, 1936), 685-88.
Presents evidence from the researches of R. E. Scammon and others as to the physiological growth of the human organism and draws certain implications for the organization of elementary and secondary education.

JUNIOR HIGH SCHOOL

490. GILCHRIST, ROBERT S. "A Functioning Junior High School," *Clearing House*, XI (September, 1936), 36-39.
A description of what a functioning junior high school should be. Considers the curriculum and various aspects of organization and administration.

JUNIOR COLLEGE

491. ALLEN, JOHN S. "Junior College Costs," *School and Society*, XLV (February 20, 1937), 270-72.

An analysis of various studies of junior-college costs to determine the probable junior-college expenditure per year per student in average daily attendance.

492. ALLEN, JOHN S. "Criteria for Establishment of Junior Colleges," *Junior College Journal*, VII (April, 1937), 356-63.
Describes a plan used in the selection and the validation of criteria for the establishment of a junior college and reports the results of applying these criteria to ten cities in New York State.

493. ALLEN, JOHN S., and ALLEN, GRACE C. "The Need for Public Junior Colleges in New York State," *School Review*, XLV (January, 1937), 38-52.
A factual study based largely on questionnaire information and previous investigations dealing with present opportunities for higher education in New York State, the high-school postgraduate problem, intentions of high-school Seniors with respect to further education in college and non-college communities, student demand for public junior colleges, and possible enrolments in ten non-college cities.

494. CLEMENT, J. A. "Problems Pertaining to the Postgraduate Curriculum in 927 N.C.A. Schools," *North Central Association Quarterly*, XI (October, 1936), 227-47.
Report of a questionnaire study involving 927 schools having more than 13,000 postgraduate students and 302 schools with no postgraduate work. Information is included concerning students, program, and faculty.

495. EILLS, WALTER CROSBY. "Status of the Junior College in the United States, 1936-37," *School and Society*, XLV (January 30, 1937), 166-68.
Summarizes the figures on the growth in number of junior colleges, on the increase in enrolment, on the distribution by states and by types of institutions, and on the number of instructors and the changes in administration.

496. EILLS, WALTER C. "Junior College Costs," *School and Society*, XLV (April 10, 1937), 524-28.
A severe criticism of the article by John S. Allen (Item 491 in this list) and the presentation of a lower cost figure supported by additional evidence.

497. GREENLEAF, WALTER J. *Junior Colleges*. United States Office of Education Bulletin No. 3, 1936. Pp. iv+86.
Part I deals with the origins, development, and auspices of control of the several types of junior colleges and related institutions. Part II reports the results of a questionnaire survey of junior colleges, made in 1934, under such headings as names of junior colleges, dates of establishment, legal control, staff members, enrolments, graduates, and titles or degrees conferred.

498. HEPNER, WALTER R. "The Junior College as a Distinct Unit," *Junior College Journal*, VII (November, 1936), 57-63.
Points out the functions of the junior college and presents arguments favorable to the maintenance of the junior college as a distinct unit.

499. KILZER, L. R. "A Study of Certain Local Public Junior Colleges," *American School Board Journal*, XCIV (April, 1937), 31-33, 94.
 A study made in 1936 of seventy-eight local junior colleges and the state regulations governing them. Reports data secured by questionnaire in respect to location, recent legislation in relation to local junior colleges, year of organization, relation to local school system, grade organization, population in areas organized, enrolment, minimum number of high-school pupils required, and distance from other colleges.

500. PEIFFER, HERBERT C., JR. "Student Activity Fees in the Junior College," *Junior College Journal*, VII (February, 1937), 255-56.
 A study of the catalogues of 256 junior colleges to determine frequency of existence of a separate student activity fee and the amount, purpose, and compulsory or non-compulsory nature of the fee.

501. PIERCE, O. L., and CARPENTER, W. W. (Compiled for the Research Committee of the American Association of Junior Colleges.) "Changes in the Number of Junior Colleges and Changes in Their Organization from 1930-31 to 1936-37," *Junior College Journal*, VII (May, 1937), 501-3.
 Presents results of a study of succeeding years of the junior-college directory and a supplementary questionnaire study to determine changes in the number and the status of junior colleges, enrolments, and plans of organization in 1931-32 and 1936-37.

502. RICCIARDI, NICHOLAS. "Junior College Organization," *Junior College Journal*, VII (May, 1937), 425-29.
 Presents evidence on the need for non-university curriculums and discusses the following elements in an effective organization: statement of purposes, student personnel service, curriculum-building, placement and follow-up, and professional personnel.

THE SMALL HIGH SCHOOL

503. SEYFERT, WARREN C. "Imitation and Discrimination in Administering the Small Secondary School," *School Review*, XLV (January, 1937), 28-37.
 Points out the undesirability of administering small secondary schools by imitating the practices of large schools and lists and discusses four steps in a discriminative policy of school administration.

ADULT EDUCATION

504. ELY, MARY L. (Editor). *Adult Education in Action*. New York: American Association for Adult Education, 1936. Pp. xx+480.
 A collection of condensed versions of 160 articles, most of which have appeared in the *Journal of Adult Education*. These are organized to present the need for adult education, the agencies, the means, the methods, and the personnel.

505. HEMENWAY, H. S. "Let's All Go to School," *Nation's Schools*, XVIII (December, 1936), 12-15.

Describes the adult evening program at Shorewood, Wisconsin. Type of control, student groups, staff, nature of the program, and cost are briefly considered.

506. REEVES, FLOYD W. "Adult Education as Related to the Tennessee Valley Authority," *School and Society*, XLIV (August 29, 1936), 257-66.

An overview of the development, agencies, and purposes of adult education, especially in New York State, and an explanation of the nature of the program and the administrative arrangements for adult education under the Tennessee Valley Authority.

507. *A Step Forward for Adult Civic Education*. United States Office of Education Bulletin No. 16, 1936. Pp. 28.

An account of the ten forum demonstration centers sponsored by the United States Office of Education.

508. STUDEBAKER, J. W. *Safeguarding Democracy through Adult Civic Education*. United States Office of Education Bulletin No. 6, 1936. Pp. 36.

A compilation of addresses and papers by the United States Commissioner of Education on the public affairs forum movement.

YOUTH PROGRAMS¹

509. CHAMBERS, M. M. "Non-governmental National Youth-serving Agencies and Organizations," *School and Society*, XLIV (October 24, 1936), 544-47.

Defines the term "youth agency or organization" and discusses the various forms under the following headings: youth organizations with adult leadership, youth-service organizations of adults, social-service organizations, and foundations and research organizations.

510. DOUGLASS, HARL R. *Secondary Education for Youth in Modern America*. A Report to the American Youth Commission of the American Council on Education. Washington: American Council on Education, 1937. Pp. x+138.

A statement of the backgrounds and objectives of secondary education, the problems and needs of youth, recent changes in American life, the need for universal and continued education, and the implications for the secondary school.

511. DOUGLASS, HARL R. "Our American Youth—Their Plight and a Program," *Journal of the National Education Association*, XXVI (April, 1937), 110-13.

Describes conditions found among youth of this country and presents a program to help solve some of the problems.

¹ See also Item 193 (Swanson) in the list of selected references appearing in the March, 1937, number of the *School Review*.

512. JESSEN, CARL A., and HUTCHINS, H. CLIFTON. *Youth . . . Community Surveys*. Published by the Committee on Youth Problems. United States Office of Education Bulletin No. 18-VI, 1936. Pp. x+98.
A summary of youth surveys which have been conducted independently. A report on the findings of thirteen comparable studies made with the assistance of the United States Office of Education. Suggestions are made for conducting a survey of youth. An annotated bibliography of surveys of youth is included.

513. MINEHAN, THOMAS. "Boy and Girl Tramps of the Road," *Clearing House*, XI (November, 1936), 136-39.
Describes the characteristics of boy and girl tramps and the needs of our youth which are not being met.

514. OUTLAND, GEORGE E. "Boy Tramps of the Road: A Further Statement," *Clearing House*, XI (January, 1937), 277-79.
Refutes some of the statements in the article by Thomas Minehan (Item 513 in this list) and makes further suggestions for meeting the needs of youth.

515. OXLEY, HOWARD W. "CCC Education Platform for 1936-37," *School Life*, XXII (September, 1936), 15, 20.
The platform includes nine planks which indicate the recognized needs of the C.C.C. program and the means for meeting them.

516. "Review and Revision of the Student-Aid Program," *School Review*, XLIV (October, 1936), 561-64.
Reports a conference of educators which met in July, 1936, at the call of the National Youth Administration to advise on the 1936-37 program. A report on policy is quoted in full.

517. "The Youth Problem," *North Central Association Quarterly*, XI (October, 1936), 190-210.
Papers dealing with the problems of youth delivered at the April, 1936, meeting of the association by L. N. McWhorter, Harold Nathan, and Homer P. Rainey.

Educational Writings

REVIEWS AND BOOK NOTES

Another textbook on the principles of secondary education.—The rapid expansion of secondary education in the United States and the prolific growth of the training of secondary-school teachers are reflected in the great number of textbooks on this subject which have appeared during the past decade. One of the latest of these¹ illustrates once again that the primary problem of good textbook-writing in this field is that of scope. Secondary education, extending from the junior high school through the junior college, plus liberal overlappings with elementary education at one end and with the "general college" at the other, has become such a prodigious enterprise that a single course in "principles" can no longer give the student a detailed picture of the whole process. What to include and what to leave out becomes, therefore, an urgent question.

The authors of the textbook under review have chosen to err on the side of profusion, leaving it, presumably, to the instructor who uses the book to make his own selection of materials. The textbook includes the usual historical, comparative, administrative, curricular, and several other aspects—twenty-two chapters in all, covering 624 pages. As a consequence, the treatment may appear to some readers as being somewhat encyclopedic in nature, with perhaps not so much space devoted to interpretative and transitional passages as might be wished for the purpose of affording the beginning student the general overview which, in the reviewer's—possibly biased—opinion should be the primary purpose of the course. Inadequate emphasis, moreover, is given to the larger social significance of secondary schools and their place in the new social order. Finally, the attempt to include everything that was a part of such a course when secondary education rarely meant more than a four-year high school has necessitated such brevity of treatment in many places as to invite the charge of superficiality.

A second major problem facing textbook-writers and others who are engaged in the training of secondary-school teachers is that of presenting to the student the results of recent experimentation with new types of curriculum and course organizations, administration of credit, school marks, report cards, and the like—all aspects of the current widespread movement toward "progressive"

¹ Fred Engelhardt and Alfred Victor Overn, *Secondary Education: Principles and Practices*. New York: D. Appleton-Century Co., Inc., 1937. Pp. xvi+624. \$2.75.

education. This problem the authors have met unusually well. Chapters ix and x, dealing with "The Administration of the Program of Work" and "The Place of Various Subjects in the Program of Studies," both represent valuable contributions beyond anything appearing in any other textbook in this field. In these chapters the authors show a remarkably wide acquaintance with current developments, and they present these developments in a way that is free from the bias or partisanship which often characterizes the literature of progressive education. In the opinion of the reviewer, no up-to-date introductory course in secondary education can afford to ignore these two chapters as a part of the required reading by the members of the class. The condensed review of the developments there described, moreover, merits the careful study of administrators and experienced teachers.

By contrast, the series of nine chapters on as many subject fields seems strangely out of place following the excellent descriptions of newer curriculum practices. Today the basis of approved organization of the secondary-school curriculum is not that of subjects but rather that of life-activities or functions, as the authors themselves make clear in preceding chapters. In any event, only a small part of the almost two hundred pages devoted to the various subjects will be of interest to any one student who, at most, is preparing to teach in only one or two major fields. Moreover, the treatment in each case is of necessity so brief as to leave a great deal to be desired from the point of view of a teacher in the field.

Other elements in a conventional course in secondary education are fairly adequately represented, although not always with sufficient clarity or emphasis to present a clear picture of the whole. There is little evidence of any attempt to build up a logical sequence within chapters or between chapters, nor are chapters grouped into "parts" or divisions to emphasize major aspects of secondary education as a whole.

Among the more excellent features of the book, mention must be made of the commendable use of the National Survey of Secondary Education and other sources of reliable objective information. There is abundant evidence of competent and exhaustive scholarship in other respects. The book, on the whole, is well written, well edited, and beautifully printed. The volume contains thirty-five illustrations, several of which, such as reproductions of cartoons, "close-ups" of newer practices, and a few excellent charts, far transcend in interest the more conventional photographs of buildings, grounds, and classrooms.

FREDERICK J. WEERSING

UNIVERSITY OF SOUTHERN CALIFORNIA

Articulation between secondary school and college.—For more than a decade workers at the University of Minnesota have played a prominent part in promoting and conducting studies in the field of higher education. A recent group

of such investigations,¹ subsidized by a grant from the Carnegie Corporation of New York City through the Carnegie Foundation for the Advancement of Teaching, is concerned with problems of articulation: student progress and promotion, the selection of students for college entrance, the ultimate limits of individual development, means of forecasting the probable extent of such limits, the ability of students at a particular level of the school program to master subject matter normally taught at a higher level, and the dependence of advancement in a particular field on the prior acquisition of specific subject matter.

Even though the procedures employed and the results reported may not be fully applicable to the local or individual problems of other higher institutions and secondary schools, the plan of sponsorship by a Committee on Educational Research is commended for the consideration of colleges and universities in general. The Minnesota committee includes representatives from such major divisions of the University as engineering, sociology, agriculture, graduate school, law, forestry, home economics, liberal arts, dentistry, architecture, chemistry, medicine, pediatrics, psychology, education, and business administration. Certainly the concept and the practice of attacking educational problems and of reaching decisions on an objective, factual basis are greatly to be preferred over the following of tradition or authoritarian pronouncement, the untested assumptions of faculty members, or an unevaluated innovation accepted and advertised as a panacea for all the ills and difficulties of higher education.

CARTER V. GOOD

UNIVERSITY OF CINCINNATI

Cultural pressures and behavior.—In recent years the changing emphasis in applied psychology and psychiatry has been a most interesting phenomenon. Definite cycles have been observed, not only in the emphasis on different topics, but also in adherence to various "schools" of psychiatry. Thus, Adolf Meyer had a tremendous following until recent years. Following the earlier influence of Adolf Meyer, psychiatrists began to affiliate with two other "schools," those of Alfred Adler and of Freud. Because of many influencing factors the Freudian school had the largest number of adherents. There was no doubt, for instance, about the value of the Freudian concepts, and much of the material that the Freudians presented was scientifically integrated and practicable. The Freudians quickly gathered about them not only additional physicians but also laymen, some of whom sought help for their problems and others of whom were intrigued by the subject matter. There is no doubt, for example, that the majority of laymen interested in psychoanalysis had the same attitude toward its scientific problems as they had toward palmistry or character-reading. Some of the physicians thought it extremely easy to become psychoanalysts. All one had

¹ *Minnesota Studies in Articulation*. Committee on Educational Research, M. E. Haggerty (Chairman). Minneapolis, Minnesota: University of Minnesota, 1937. Pp. viii+128.

to do was to go through a course of personal psychoanalysis and to do a little practical work under supervision. To become a specialist in any other field generally requires laboratory work, experimental research, and an intensive study of the literature in different fields. In psychoanalysis the material is interesting because of one's own problems, and the discussions are rarely controlled by the scientific method. Because of these and other factors, psychiatrists and applied psychiatrists soon separated themselves into two groups: those who believed that the psychoanalyst had the answer for all human behavior, from problems of learning to problems of psychopathology, and those who believed that the technique of psychoanalysis was applicable only to a limited group of patients, principally patients with neurotic symptoms of the superficial type. Because of the great amount of criticism of psychoanalysis, there has been a changing emphasis in that field, and in the past three years psychoanalysts have been talking about the influence of social problems and especially about the influence of cultural backgrounds and pressures.

The author of the volume under discussion¹ has been known as a psychiatrist whose attitude toward psychoanalysis places him in neither of the two groups mentioned, and he presents his material in an impartial manner. The book is designed as a discussion of the various cultural factors influencing personality and the consequent behavior. The topics discussed range from the concepts of personality to specific cultural influences, such as are found in the organization of the family, the school, and the legal and the social order. In addition, there are several chapters dealing with specific fields of work, such as social work, medicine, and education. The book is written in an easy style, utilizing the conversational method. Such a style is excellent for a person outside the fields of psychology and psychiatry because the material is presented in an interesting way. The professional psychiatrist or psychologist, however, is likely to be somewhat disturbed, and perhaps even bored at times, by many of the bland discussions, the wanderings from the subject material, and the numerous repetitions. Such a style requires the use of coined terms and a language somewhat different from that utilized by the person who presents his material in a direct way, giving the facts first and the interpretations afterward. As an example of the style, page 81 contains a discussion of the *cadence* of the individual. By this term the author means the rate with which a person "ripens" and "with which he works his way through to some goal." Thus, some individuals are supposed to "stumble their way through life," whereas others "run or skip their way." The reader can easily visualize a person stumbling, as if he had caught his feet in some obstacle, and another person who merrily skips his way; but, while these similes are dramatic and impressive, the reader may well criticize the author for the use of such examples, especially as they are meant to be definitive of personality differences. A similar criticism can be made of the author's discus-

¹ James S. Plant, M.D., *Personality and the Cultural Pattern*. New York: Commonwealth Fund, 1937. Pp. 432. \$2.50.

sion about attitudes (pp. 83-88). He attempts to classify attitudes into three types, which he calls basic. These are the attitudes toward security, toward reality, and toward authority. Persons who have done experimental work on attitudes and those familiar with the literature may well question Dr. Plant's authority for classifying attitudes into three types. One may, therefore, again wonder whether the conversational type of writing does not have the inherent defect of necessitating categoric statements without the necessity of scientific responsibility for the statements made. Certain it is that nobody knows what "basic" attitudes are, and certain it is also that our knowledge of attitudes is far from complete.

The author continually looks for meanings in the contributions of different fields. The reviewer wonders whether it is not better for the scientist to present his material and allow the individual reader to reflect on various meanings. Not that the author's discussion of such topics as the meaning of the real brotherhood of man is not worth while or interesting. The criticism is made simply because such discussions could well be made at the end of the book rather than during the presentation of the factual material.

This book is excellent for orientation in the influences of cultural pressures on personality manifestation. Were the reviewer not acquainted with the scientific integrity of the author and his excellent clinical work, he might well visualize him as a "mellow," retired psychiatrist, reflecting his attitudes in a temperate, kindly, and yet not unscientific way.

MANDEL SHERMAN

A new objective in the short-story field.—Professor Seely has scored again,¹ this time in collaboration with Margaret Roling, chairman of the English Department of the Indianola Junior High School, Columbus, Ohio.

The objective, as stated in the title and elaborated in both preface and critical discussion, is to present current short stories that high-school pupils will enjoy. As set forth in Professor Seely's little booklet, *Helping Pupils Enjoy Short Stories*,² which accompanies the anthology, the seventeen stories presented were selected with three characteristics in view: (1) their fitness for high-school pupils, (2) their adaptability to present-day interests, and (3) their appeal to individual differences. An impartial perusal of the stories will convince the teacher of the short story that the selections justify the claims made by the compilers.

Especially commendable are the discussions found in both the anthology and the booklet—discussions which present in simple language all that the high-school pupil needs to know about a short story in order to enjoy it. The avoid-

¹ *Recent Stories for Enjoyment*. Selected and edited by Howard Francis Seely and Margaret Roling. New York: Silver Burdett Co., 1937. Pp. xii+360+xl. \$1.28.

² Howard Francis Seely, *Helping Pupils Enjoy Short Stories*. New York: Silver Burdett Co., 1937. Pp. 24. \$0.32.

ance of technical terms and the absence of hairsplitting distinctions indicate that the compilers are more interested in children than in literary technique.

Professor Seely and his collaborator are to be commended for presenting to high-school youth stories which faithfully reflect the life that those children are living today and, moreover, stories which "dad" and "mom" may read without feeling the need of a disinfectant. Realistic enough are most of these stories—vital, vibrant with life; but erotic, no!

One of the most valuable features of this anthology is the supplement, which consists of short biographical sketches of the authors of the stories presented, an excellent classified bibliography of recent short stories suitable for high-school pupils, and an adequate list of short-story anthologies.

The book is beautifully and serviceably bound and is printed in clear type. It is the kind of book that a person wishes to add to his private library after he has read it.

VINCENT A. DAVIS

KANSAS STATE TEACHERS COLLEGE
EMPIORIA, KANSAS

A practical, pedagogical, complete textbook on business.—The teachable book¹ under discussion covers about all the business aspects that are of immediate interest to the average citizen and gives innumerable useful business facts. It is descriptive in nature. It is practical. It gives advice on the indorsement of checks; it tells what to do in case of an accident; it gives the sources of business information; and it deals with family budgets and with taxes. It provides a good introduction to many business functions and services.

Many pictures are included, a large proportion of which are useful in illustrating the text. Types of business documents are shown in facsimile, such as budgets, ledgers, bills, notes, bonds, mortgages, stock certificates, and bills of lading.

Pedagogical helps are included at every few pages. These are in the form of lists of review questions; discussion questions; and definite activities, projects, and other things to do. The pedagogical helps seem really to be helpful. A picture showing the "success hour" seems very useful.

This book is not a publication on business policies or business administration but rather a book on business practices. It has a good index.

While this textbook seems free from errors in fact, one may doubt the wisdom of interpreting thrift broadly enough to include city finances, the use of government services, and the choice of life-work. The picture showing the various types of dial telephones seems superfluous. On page 12 the term "business" is defined peculiarly, if not questionably.

¹ Lloyd L. Jones, *Our Business Life*. New York: Gregg Publishing Co., 1936. Pp. viii+660. \$1.50.

The author has prepared not only a book which is useful as a high-school textbook but a book which is useful for any citizen who wishes to get a first view of business practices and services.

WALDO F. MITCHELL

INDIANA STATE TEACHERS COLLEGE
TERRE HAUTE, INDIANA

Content and instructional techniques in biology.—The integration of special and interrelated branches of a science into a unified body of knowledge presents many problems. The selection, from the vast mass of scientific material in the biological sciences, of basic facts and principles, disengaged of irrelevant and exceedingly technical materials, which shall constitute elementary courses in high school and college is an especially difficult task. The consideration, moreover, of the associated problems of methodology adds much to an already difficult undertaking. These two undertakings provide the content of a recent book in biology.¹

Part I of the book is devoted to a discussion of such topics as "Objectives," "The Unified and the Divided Courses," "The Type, Systematic, and Principles Courses," "The Restricted and the Survey Courses," and "The Organization of Units." Part II treats of such special teaching problems as the use of the laboratory, the project method, the field trip in biology, measurement and evaluations of the outcomes of teaching, and special problems in taxonomy, distributional biology, morphology, physiology, genetics, ecology, and behavior. Two concluding chapters deal with the training of the biology teacher and the biologic viewpoint in the college.

The discussion of organization of content and methodology is largely empirical in character, although some consideration is given to objective investigations of science-teaching. It is clear, however, that the author attaches much more weight to his own teaching experiences and observations than to the findings of experimental investigations. In lieu of the present incomplete and somewhat meager knowledge of principles of teaching and organization of materials of instruction growing out of educational investigations, he has selected the practical alternative of basing his recommendations on his own experiences as a teacher. There is not much overt indication, however, that the scientific attitude so strongly emphasized in the content of the book carries over into the consideration of teaching problems. The author has rather the viewpoint of an academic mind, while, at the same time, he is critical of commonly used practices and frequently offers constructive suggestions for change. These suggestions are probably the distinctive contribution of the publication. The book provides also an excellent summary of the relative merits and defects that have been advanced for alternative forms of content organization.

¹ Alfred C. Kinsey, *Methods in Biology*. Philadelphia: J. B. Lippincott Co., 1937. Pp. x+280. \$2.50.

High-school teachers of biology, and college teachers as well, will find the book stimulating, and it should make them more critical of their own organization of materials and techniques of instruction. The book will also serve as a valuable reference work for prospective teachers of biology in high school or college.

PALMER O. JOHNSON

UNIVERSITY OF MINNESOTA

A textbook on American problems.—Textbooks for the course in problems of democracy are probably the most difficult to write of any in the social-studies field. The chief difficulty is presented by the unstandardized character of the course. Textbook writers, attempting to produce a book which will be usable in the largest possible number of schools, present all the problems that various teachers may want to include in the course. Hence the tendency is strong to cover as many as thirty-five "problems" in a highly superficial manner.

*American Democracy and Social Change*¹ avoids this weakness by concentrating on eleven large units, of which the following are typical: "The American Standard of Living," "Productive Enterprise and the General Welfare," "Urban Groups and Problems," and "The Constitutional System." Under each unit are from two to five chapters. It must be admitted that the question of selection has been answered here with reasonable success. Few of the units, of course, represent real "problems" as many teachers interpret that term; instead they concern groups of related problems and institutions.

Another weakness that characterizes these textbooks as a group is the inadequacy of the presentation of certain units. This book, while better than some in this regard, is not free from that defect. Especially unsatisfactory is the unit on "International Interests and Obligations." If this unit is considered from the standpoint of how the concepts presented would improve the ability of pupils to think realistically about international affairs, one will be impressed by the mental poverty that would result. Certainly many high-school pupils would have more accurate concepts of these problems from their history courses. It is not so much that the treatment is marked by inaccuracies (for example, listing the protectorates of the United States as Mexico, Cuba, Nicaragua, and Haiti) to which objection may be made, as it is the lack of balance in the selection of facts and concepts included. The section on immigration in the first unit is weak in a similar way. By assuming the desirability of a high degree of conformity and by overstating (four-fifths instead of three-fifths) the proportion of English in the Colonial population, the presentation, in the reviewer's judgment, will tend to develop a definite prejudice against non-English immigrant groups and the countries from which they came.

Each chapter is followed by references, discussion questions, and activities

¹ Edward Everett Walker, Walter Greenwood Beach, and Olis Glen Jamison, *American Democracy and Social Change*. New York: Charles Scribner's Sons, 1936. Pp. xxii+688. \$1.88.

of a project type. At the end of each unit is a unit outline, suggested unit-organizing exercises, report topics, and general references. The numerous illustrations are varied in type and are, for the most part, excellent. The best of them are taken from the Research Bulletin of the National Education Association on *Modern Social and Educational Trends* (Vol. XII, No. 5, 1934). A few of the illustrations (on page 34, for example) are not sufficiently self-explanatory, and a few others (such as that on page 63) have misleading titles. On the whole, both the illustrations and the suggested teaching aids are superior selections.

As one of a group of books for the course in problems, *American Democracy and Social Change* no doubt fills a desirable place; but as an adopted textbook, basic to the course, the deficiencies noted make it a questionable choice.

ELMER ELLIS

UNIVERSITY OF MISSOURI

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

AKRIDGE, GARTH H. *Pupil Progress Policies and Practices*. Teachers College Contributions to Education, No. 691. New York: Teachers College, Columbia University, 1937. Pp. viii+76. \$1.60.

ARSENIAN, SETH. *Bilingualism and Mental Development: A Study of the Intelligence and the Social Background of Bilingual Children in New York City*. Teachers College Contributions to Education, No. 712. New York: Teachers College, Columbia University, 1937. Pp. vi+164. \$2.10.

BASON, CECILIA HATRICK. *Study of the Homeland and Civilization in the Elementary Schools of Germany: With Special Reference to the Education of Teachers*. Teachers College Contributions to Education, No. 710. New York: Teachers College, Columbia University, 1937. Pp. iv+166. \$1.85.

BAYLISS, W. BRADFORD. *An Evaluation of a Plan for Character Education: Involving the Use of a Pledge, an Award, and a Sponsor*. Teachers College Contributions to Education, No. 695. New York: Teachers College, Columbia University, 1936. Pp. viii+142. \$1.60.

BRINK, WILLIAM G. *Directing Study Activities in Secondary Schools*. Garden City, New York: Doubleday, Doran & Co., Inc., 1937. Pp. xiv+738. \$3.00.

BROOKS, FOWLER D., with the collaboration of LAURANCE F. SHAFFER. *Child Psychology*. Boston: Houghton Mifflin Co., 1937. Pp. xxx+600. \$3.00.

CHAVE, ERNEST J. *Personality Development in Children*. Chicago: University of Chicago Press, 1937. Pp. xiv+354. \$2.50.

COLE, WILLIAM E., and CROWE, HUGH PRICE. *Recent Trends in Rural Planning*. Sociology Series. New York: Prentice-Hall, Inc., 1937. Pp. xvi+580. \$3.50.

CUFF, NOEL B. *Child Psychology*. Louisville, Kentucky: Standard Printing Co., 1937. Pp. 300.

DAKIN, DOROTHY. *Talks to Beginning Teachers of English*. Boston: D. C. Heath & Co., 1937. Pp. xii+478. \$2.40.

GABEL, RICHARD J. *Public Funds for Church and Private Schools*. Washington: Catholic University of America, 1937. Pp. xiv+858.

GATES, ARTHUR I. *A List of Spelling Difficulties in 3876 Words: Showing the "Hard Spots," Common Misspellings, Average Spelling Grade-Placement, and Comprehension Grade-Ratings of Each Word*. New York: Teachers College, Columbia University, 1937. Pp. 166. \$2.10.

GRINNELL, J. ERLE. *Interpreting the Public Schools: A Manual of Principles and Practices of Public School Interpretation with Special Emphasis on Published Materials*. New York: McGraw-Hill Book Co., Inc., 1937. Pp. xii+360. \$2.75.

GRIZZELL, E. D. *American Secondary Education*. New York: Thomas Nelson & Sons, 1937. Pp. xiv+312. \$2.00.

HENDERSON, ELISHA LANE. *The Organization and Administration of Student Teaching in State Teachers Colleges*. Teachers College Contributions to Education, No. 692. New York: Teachers College, Columbia University, 1937. Pp. vi+126. \$1.60.

An Introduction to Modern Education. Edited by Charles E. Skinner and R. Emerson Langfitt. Boston: D. C. Heath & Co., 1937. Pp. xvi+492. \$2.80.

LAZAR, MAY. *Reading Interests, Activities, and Opportunities of Bright, Average, and Dull Children*. Teachers College Contributions to Education, No. 707. New York: Teachers College, Columbia University, 1937. Pp. 128. \$1.60.

MC EACHERN, EDNA. *A Survey and Evaluation of the Education of School Music Teachers in the United States*. Teachers College Contributions to Education, No. 701. New York: Teachers College, Columbia University, 1937. Pp. viii+184. \$1.85.

MATTHEWS, M. TAYLOR. *Experience-Worlds of Mountain People: Institutional Efficiency in Appalachian Village and Hinterland Communities*. Teachers College Contributions to Education, No. 700. New York: Teachers College, Columbia University, 1937. Pp. xvi+210. \$2.25.

PRITCHARD, MIRIAM C. *The Mechanical Ability of Subnormal Boys*. Teachers College Contributions to Education, No. 699. New York: Teachers College, Columbia University, 1937. Pp. x+74. \$1.60.

REEDER, WARD G. *An Introduction to Public-School Relations*. New York: Macmillan Co., 1937. Pp. xii+260. \$2.25.

WESLEY, EDGAR BRUCE. *Teaching the Social Studies: Theory and Practice*. Boston: D. C. Heath & Co., 1937. Pp. xviii+636.

WHEAT, HARRY GROVE. *The Psychology and Teaching of Arithmetic*. Boston: D. C. Heath & Co., 1937. Pp. x+592. \$2.80.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

BLOOM, SOL. *The Story of the Constitution*. Washington: United States Constitution Sesquicentennial Commission (House Office Building), 1937. Pp. 192.

CRAIG, ALICE EVELYN. *The Speech Arts: A Textbook of Oral English*. New York: Macmillan Co., 1937 (revised). Pp. xvi+572. \$1.72.

CRU, ALBERT L. *La France: Ce qu'il faut savoir de son histoire et de sa civilisation. Facts About France*. New York: Teachers College, Columbia University, 1937 (preliminary edition). Pp. 144. \$1.15.

EDMONSON, JAMES A., and DONDINEAU, ARTHUR. *A Pupil's Workbook in Vocations*. New York: Macmillan Co., 1937. Pp. vi+98. \$0.48.

FITZPATRICK, FREDERICK L. *Tests in Biology*. Boston: Houghton Mifflin Co., 1937. \$0.40 set.

FREILICH, AARON; SHANHOLT, HENRY H.; and McCORMACK, JOSEPH P. *Review of Mathematical Analysis: Equations, Probability, Calculus*. New York: Silver Burdett Co., 1937. Pp. vi+138. \$0.60.

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